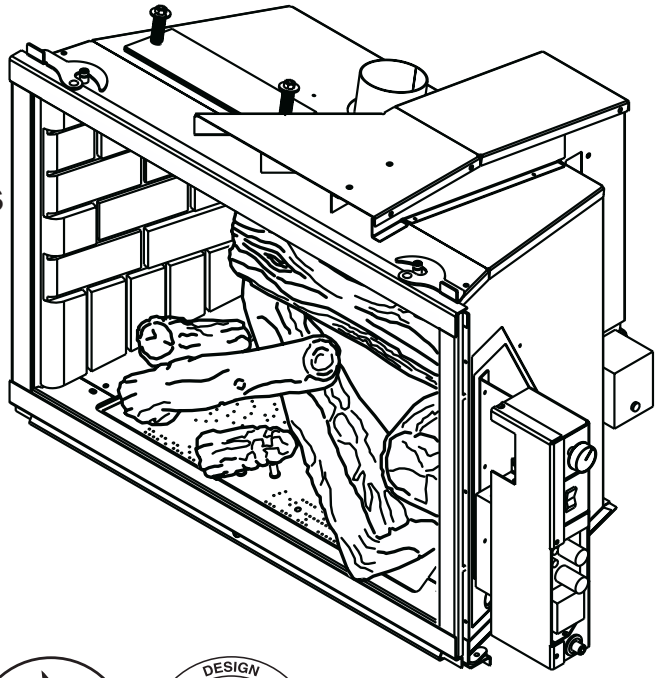
Monessen

ILDV Series
Direct Vent
Gas Fireplace Insert

Installation and Operating Instructions

Models: ILDV20NV & ILDV20PV
ILDV30NV & ILDV30PV



WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

- **Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**
- **WHAT TO DO IF YOU SMELL GAS**
  - **Do not try to light any appliance.**
  - **Do not touch any electrical switch; do not use any phone in your building.**
  - **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.**
  - **If you cannot reach your gas supplier, call the fire department.**
- **Installation and service must be performed by a qualified installer, service agency or the gas supplier.**

WARNING: Improper installation, adjustment, alteration, services or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

This appliance may be installed in an aftermarket*, permanently located, manufactured home (USA only) or mobile home, where not prohibited by local codes.
This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.

* **Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer.**

CERTIFIED

DESIGN CERTIFIED

DUE TO HIGH TEMPERATURES, THE APPLIANCE SHOULD BE LOCATED OUT OF TRAFFIC AND AWAY FROM FURNITURE AND DRAPERIES.

CHILDREN AND ADULTS SHOULD BE ALERTED TO THE HAZARDS OF HIGH SURFACE TEMPERATURE AND SHOULD STAY AWAY TO AVOID BURNS OR CLOTHING IGNITION.

YOUNG CHILDREN SHOULD BE SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE APPLIANCE.

CLOTHING OR OTHER FLAMMABLE MATERIAL SHOULD NOT BE PLACED ON OR NEAR THE APPLIANCE.

KEEP THE ROOM AREA CLEAR AND FREE FROM COMBUSTIBLE MATERIALS, GASOLINE, AND OTHER FLAMMABLE VAPORS AND LIQUIDS.

READ BEFORE INSTALLING. SAVE THESE INSTRUCTIONS

83D0511 12/08 Rev. 2

Important Safety Information 3

Product Features 5

Code Approval 5

Pre-Installation Information
- Installing Above 2000 Feet 6
- Orifice Sizes, Pressures and BTUs 6
- Before You Start 6
- Insert Dimensions 7

General Installation Information 8
- Insert Applications 8

Clearances 8
- Insert Clearances 9
- Mantel Clearances 9
- Hearth Requirements 9

Installation 10
- Insert Placement 10
- Zero-Clearance Fireplace Requirements 11

Vent Installation 12
- Installation Precautions 12
- Vent Requirements 13
- Altitude Considerations 14
- Vent Configurations 15
- Manifold Removal and Installation 16

Insert Installation 17
- Check Gas Type 17
- Installing Gas to Insert Location 17
- Installation Items Needed 17

Checking Gas Pressure 19

Electrical Installation 20
- Electrical Wiring 20

Log Placement 21

Surround Installation 24

Operating Instructions 25
- Lighting Pilot for the First Time 25
- Lighting Pilot 26
- Lighting Burner 27
- To Turn Off Gas 27
- Adjusting Blower Speed 27

Air Shutter Adjustment 28

Glass Replacement 29

Blower Removal and Assembly 30
- Blower Parts 31

Cleaning and Maintenance 32
- Venting System 32
- Pilot and Burner Flames 32
- Firebox Cleaning 33
- Maintaining Your Heater's Appearance 33
- Yearly Service Procedure 34

Replacement Parts Lists 35

Troubleshooting 37

Warranty 39

INSTALLER

Please leave these instructions with the appliance.

OWNER

Please retain these instructions for future reference.

WARNING

- **Read this owner's manual carefully and completely before trying to assemble, operate, or service this fireplace.**
- **Any change to this fireplace or its controls can be dangerous.**
- **Improper installation or use of this fireplace can cause serious injury or death from fire, burns, explosions, electrical shock and carbon monoxide poisoning.**

This fireplace is a vented product. This fireplace must be properly installed by a qualified service person. The glass door must be properly seated and sealed. If this unit is not properly installed by a qualified service person with glass door properly seated and sealed, combustion leakage can occur.

CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, the fireplace may not have been installed properly. Get fresh air at once! Have the fireplace inspected and serviced by a qualified service person. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Propane/LP gas and natural gas are both odorless. An odor-making agent is added to each of these gases. The odor helps you detect a gas leak. However, the odor added to these gases can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used.
2. For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
3. If you smell gas
   - shut off gas supply.
   - do not try to light any appliance.
   - do not touch any electrical switch; do not use any phone in your building .
   - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
4. Never install the fireplace
   - in a recreational vehicle
   - where curtains, furniture, clothing, or other flammable objects are less than 36" from the front, top, or sides of the fireplace
   - in high traffic areas
   - in windy or drafty areas
5. This fireplace reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.
6. Carefully supervise young children when they are in the room with fireplace.
7. Do not modify fireplace under any circumstances. Any parts removed for servicing must be replaced prior to operating fireplace.
8. Turn fireplace off and let cool before servicing, installing, or repairing. Only a qualified service person should install, service, or repair the fireplace. Have burner system inspected annually by a qualified service person.
9. You must keep control compartments, burners, and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust. Turn off the gas valve and pilot light before cleaning fireplace.

Continued on page 4

Continued from page 3

10. Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. Refer to *Cleaning and Maintenance*, Page 31.
11. Keep the area around your fireplace clear of combustible materials, gasoline, and other flammable vapor and liquids. Do not run fireplace where these are used or stored. Do not place items such as clothing or decorations on or around fireplace.
12. Do not use this fireplace to cook food or burn paper or other objects.
13. Never place anything on top of fireplace.
14. Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on rating plate.
15. This appliance, when installed, must be electrically grounded in accordance with local codes or in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*, or the *Canadian Electrical Code, CSA C22.1.*
16. Do not obstruct the flow of combustion and ventilation air in any way. Provide adequate clearances around air openings into the combustion chamber along with adequate accessibility clearance for servicing and proper operation.
17. When the appliance is installed directly on carpeting, tile or other combustible material other than wood flooring, you must set appliance on a metal or wood panel or hearth pad extending the full width and depth of the appliance.
18. Do not use fireplace if any part has been exposed to or has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control which as been submerged in water.
19. Do not operate fireplace if any log is broken.
20. Do not use a blower insert, heat exchanger insert, or any other accessory not approved for use with this fireplace.
21. Do not operate the fireplace with glass door removed, cracked, or broken.

IMPORTANT:
PLEASE READ THE FOLLOWING CAREFULLY

It is normal for fireplaces fabricated of steel to give off some expansion and/or contraction noises during the start up or cool down cycle. Similar noises are found with your furnace heat exchanger or car engine.

IMPORTANT:
PLEASE READ THE FOLLOWING CAREFULLY

It is not unusual for gas fireplaces to give off some odor the first time it is burned. This is due to the manufacturing process.

Please ensure that your room is well ventilated during burn off — open all windows.

It is recommended that you burn your fireplace for at least ten (10) hours the first time you use it. Place the fan switch in the “OFF” position during this time.

WARNING

Never connect unit to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

PRODUCT SPECIFICATIONS

- This appliance has been certified for use with either natural or propane gas. Refer to the appropriate data plates.
- This appliance is not for use with solid fuels.
- The appliance is approved for bedroom or bedsitting room installations.
- The appliance must be installed in accordance with local codes if any. If none exist use the current installation code. ANSI Z223.1/NFPA 54 in the USA, CSA B149 in Canada.
- This appliance is mobile home approved.
- The appliance must be properly connected to a venting system.
- The appliance is not approved for closet or recessed installations.

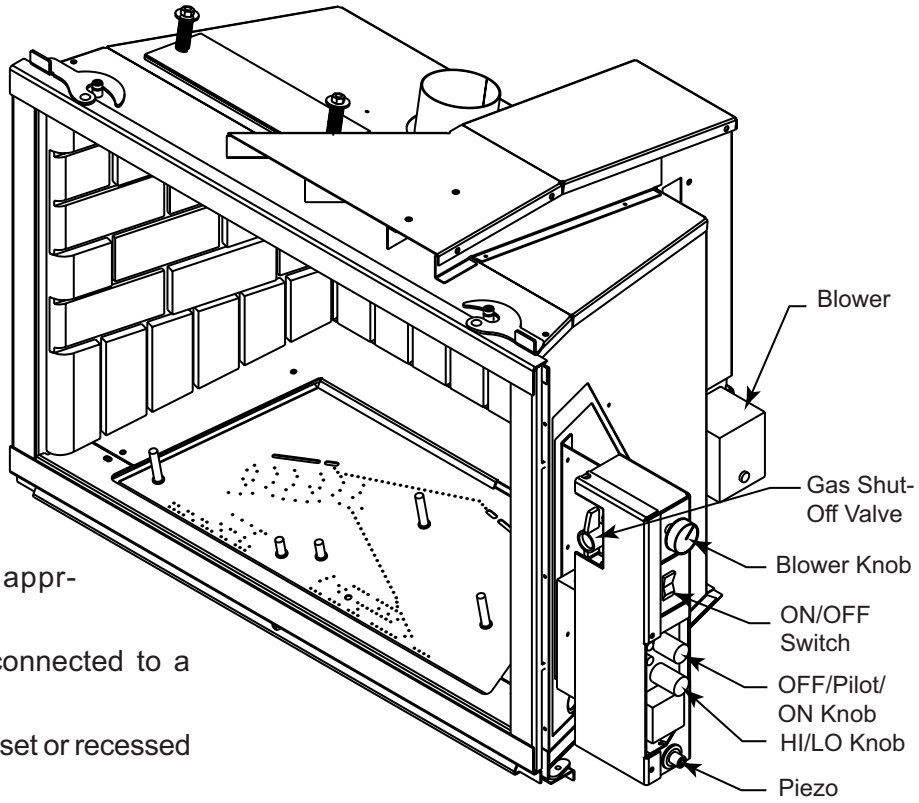


Figure 1 - ILDV Series Fireplace Insert

CODE APPROVAL

Direct Vent type appliances draw all combustion air from outside of the dwelling through the vent pipe.

These appliances have been tested by CSA and found to comply with the established standards for DIRECT VENT GAS FIREPLACE HEATERS in the USA and Canada as follows:

LISTED VENTED GAS FIREPLACE HEATER

TESTED TO: ANSI Z21.88b-2008/CSA 2.33b-2008 STANDARDS

A manufactured home (USA only) or mobile home OEM installation must conform with the ***Manufactured Home Construction and Safety Standard,*** **Title 24 CFR, Part 3280,** or when such a standard is not applicable, the **Standard for Manufactured Home Installations, ANSI/NCSBCS A225.1**, or **Standard for Gas Equipped Recreational Vehicles and Mobile Housing, CSA Z240.4**.

HIGH ELEVATIONS

Input ratings are shown in BTU per hour and are certified without deration for elevations up to 4,500 feet (1,370 m) above sea level.

For elevations above 4,500 feet (1,370 m) in USA, installation must be in accordance with the current ANSI Z223.1/NFPA 54 and/or local codes having jurisdiction.

In Canada, please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4,500 feet (1,370 m).

ORIFICE SIZES, PRESSURES AND BTUs

NATURAL GAS		**PROPANE GAS**	
Manifold Press: (W.C.)	3.5"	Manifold Press: (W.C.)	10"
Maximum Supply Pressure	10.5"	Maximum Supply Pressure	13"
Minimum Supply Pressure	4.5"	Minimum Supply Pressure	11"

Model Number	**ILDV20NV**	**ILDV20PV**	**ILDV30NV**	**ILDV30PV**
Gas Type	Natural	Propane	Natural	Propane
Max. BTU/hr Input	20,000	20,000	30,000	30,000
Min. BTU/hr Input	13,000	16,000	20,500	23,000
Orifice Size (as shipped)	#44	1.35 mm	#37	#51

NOTE: The ILDV Series fireplace inserts work without any electrical supply. The blower must be attached to 110/120V AC.

BEFORE YOU START

Read this homeowner manual thoroughly and follow all instructions carefully. Inspect all contents for shipping damage and immediately inform your dealer if any damage is found. Do not install any unit with damaged, incomplete, or substitute parts. Check your packing list to verify that all listed parts have been received.

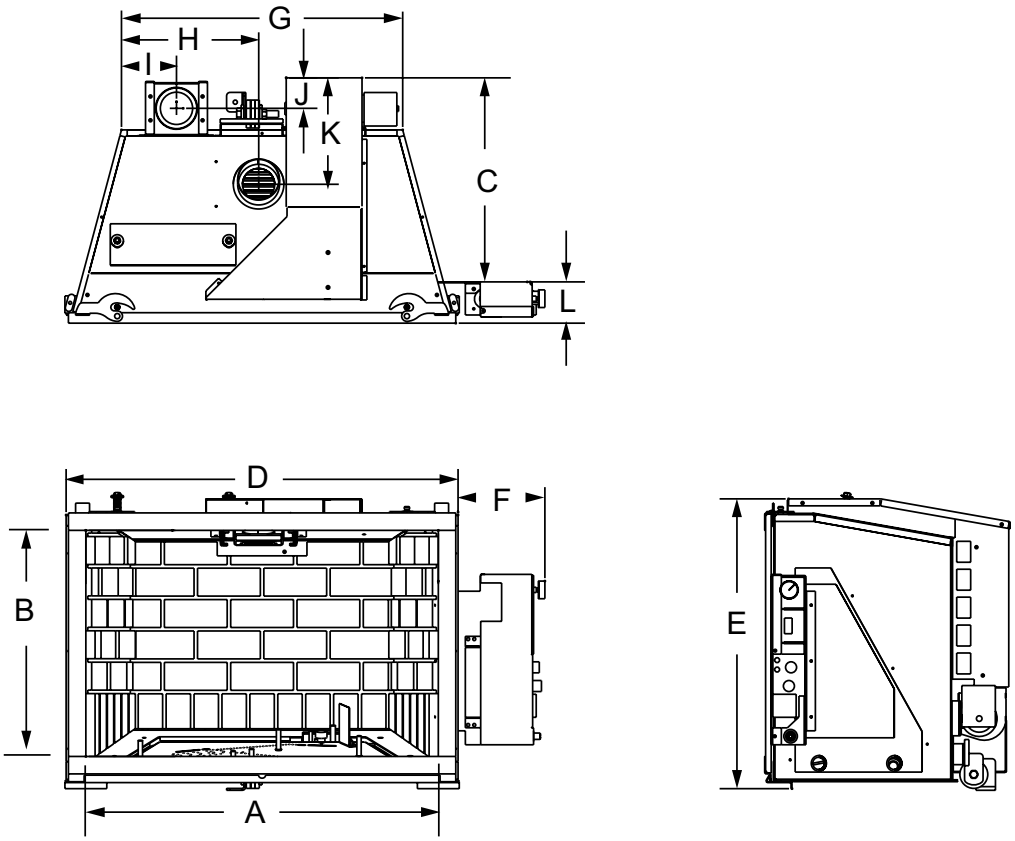


Figure 2
ILDV Fireplace Insert Dimensions

	ILDV20	ILDV30
A	21 1/4"	25 1/4"
B	13 3/16"	16 3/16"
C	13 7/8"	14 5/8"
D	24"	28 1/8"
E	17 7/8"	20 3/4"
F	6 1/4"	6 1/4"
G	16 5/8"	20 3/16"
H	8 3/8"	9 7/8"
I	3 1/8"	4"
J	2 1/8"	2 3/16"
K	6 3/8"	7 5/8"
L	2 3/4"	3"

The following factors should be taken into consideration:

- This insert should have sufficient access for its safe operation and maintenance.
- The flow of combustion and ventilation air must not be obstructed.
- Minimum clearances to combustibles, such as mantels, must be maintained. *Refer to Pages 9 and 10, Figures 3 and 4.*
- Never obstruct the front opening of the insert.
- Do not install in the vicinity where gasoline or other flammable liquids may be stored.
- These units can be installed in a bedroom. Refer to National Fuel Gas Code ANSI Z233.1/NFPA 54 (current edition), the Uniform Mechanical Code (current edition), and Local Building Codes for specific installation requirements.

IMPORTANT: Your direct vent insert was designed to be installed in an existing wood burning fireplace. The location and clearances are subject to local building codes.

INSERT APPLICATIONS

Before installing the gas fireplace insert, consider the functioning needs of the fireplace. Confirm the size of the fireplace cavity, the design of the chimney, and the availability of the gas supply and electricity for the insert fan.

IMPORTANT: Your direct vent insert is designed to be only vented vertically with a minimum height of 10 feet.

When the unit is installed into a wood burning fireplace, the minimum distance the mantel can be placed above the fireplace is governed by local building codes applicable to wood burning fireplaces. Consult local authorities having jurisdiction for these clearances. The underside of the mantel will become warm. Use only finishes which are heat resistant and do not discolor.

CLEARANCES

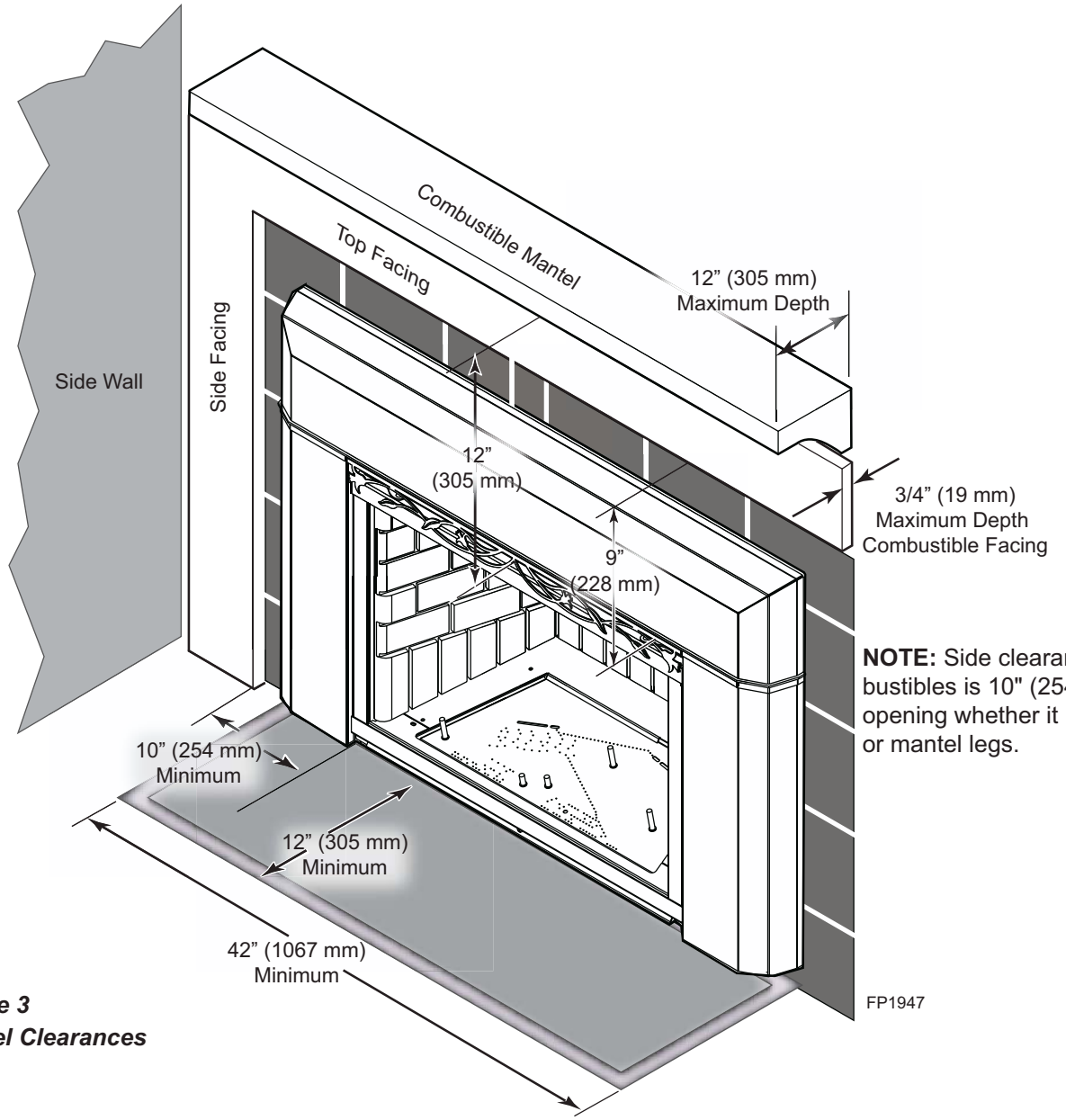
MINIMUM FIREPLACE SIZE/CLEARANCES TO COMBUSTIBLES

WARNING

The dimensions shown on Pages 9 and 10, Figures 3 and 4, are minimum clearances to maintain when installing this heater. Follow these instructions carefully to ensure safe installation. Failure to follow instructions exactly can create a fire hazard.

INSERT CLEARANCES

No combustibles (ie: drapes, doors) may be within, or swing within 36" of the front of the insert.



NOTE: Side clearance to combustibles is 10" (254 mm) from opening whether it is side wall or mantel legs.

Figure 3
Mantel Clearances

MANTEL CLEARANCES

NOTE: The combustible area above the facing must not protrude more than 3/4" from the facing. If it does, it is considered a mantel and must meet the mantel requirements listed in this manual.

HEARTH REQUIREMENTS

The insert must be installed on a noncombustible hearth extending a minimum of 12" from the fireplace opening (local codes may require a larger hearth). The hearth must also extend to both sides of the face (Refer to the table on Page 7).

INSERT PLACEMENT

- The insert must be placed within a code-conforming masonry fireplace or a tested and listed zero-clearance (UL-127, solid fuel) fireplace. Repair any fireplace damage prior to installation.
- Because the insert uses a circulation blower, clean the fireplace, smoke shelf and chimney before installing.
- This heater may be placed in a bedroom. Please be aware of the large amount of heat this appliance produces when determining a location.

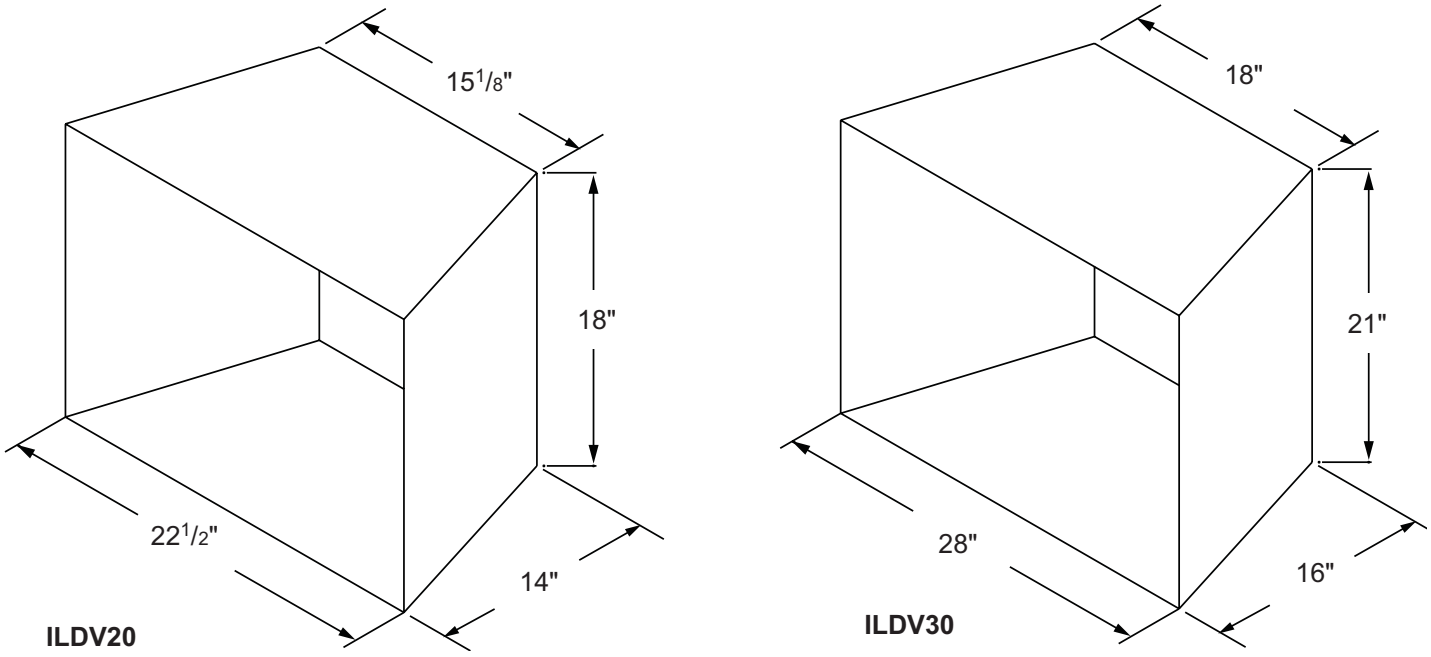


Figure 4
Minimum Openings

ZERO-CLEARANCE (METAL) FIREPLACE REQUIREMENTS

- The damper and grate must be removed.
- The smoke shelf, internal baffles, screen, refractory and metal or glass doors may be removed (if applicable).

WARNING

- **Installer must attach red warning plate to the inside of the firebox of fireplace with screws supplied.**
- **Do not cut any sheet metal parts of the fireplace in which this gas fireplace insert is installed. THIS IS STRICTLY PROHIBITED!**
- **If factory-built fireplace has no gas access hole(s) provided, drill a 1.5" (37.5 mm) or less through lower sides or bottom of firebox. You must plug the access hole with noncombustible insulation after gas supply line has been installed.**
- **If your factory-built fireplace has air passages on the face for zero capabilities, DO NOT BLOCK THESE PASSAGES!**

- Do not remove or alter the insulation or any structured rigid frame members (metal sides, floor, door frames, face of the fireplace, etc.).

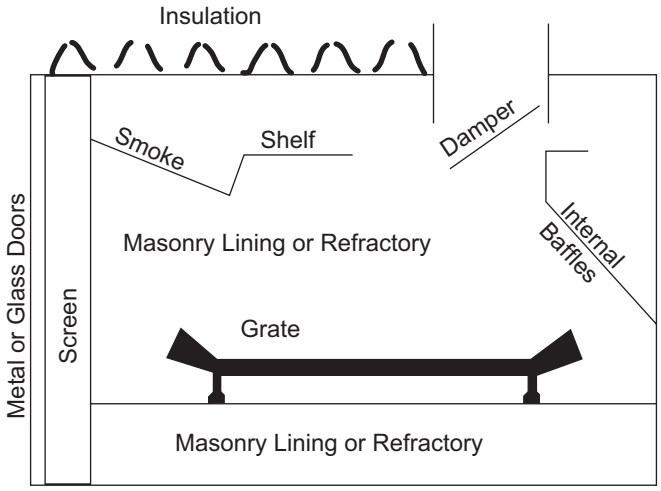


Figure 5
Metal Fireplace Zero-Clearance Requirements

IMPORTANT: Please review the following carefully.

It is normal for inserts fabricated of steel to give off some expansion and/or contraction noises during the start up or cool down cycle. Similar noises are found with your furnace heat exchanger or car engine.

It is not unusual for your insert to give off some odor the first time it is burned. This is due to the curing of the paint and any undetected oil from the manufacturing process.

Please ensure that your room is well ventilated. OPEN ALL WINDOWS DURING INITIAL BURN OFF/CURING PHASE.

Burn your insert for at least six (6) hours on "HIGH" the first time you use it. Place the fan in the "OFF" position during this time.

WARNING

Read all instructions completely and thoroughly before attempting installation. Failure to do so could result in serious injury, property damage or loss of life. Operation of improperly installed and maintained venting system could result in serious injury, property damage or loss of life.

NOTICE

Failure to follow these instructions will void the warranty.

INSTALLATION PRECAUTIONS

Consult local building codes before beginning the installation. The installer must make sure to select the proper vent system for installation. Before installing vent kit, the installer must read this insert manual and vent kit instructions.

Only a qualified installer/service person should install venting system. The installer must follow these safety rules:

- Wear gloves and safety glasses for protection.
- Use extreme caution when using ladders or when on rooftops.
- Be aware of electrical wiring locations in walls and ceiling.

The following actions will void the warranty on your venting system:

- Installation of any damaged venting component.
- Unauthorized modification of the venting system.
- Installation of any component part not manufactured or approved by MHSC.
- Installation other than permitted by these instructions.

WARNING

This insert must be vented to the outside. The venting system must NEVER be attached to a chimney serving a separate solid fuel burning appliance. Each gas appliance must use a separate vent system. Do not use common vent systems.

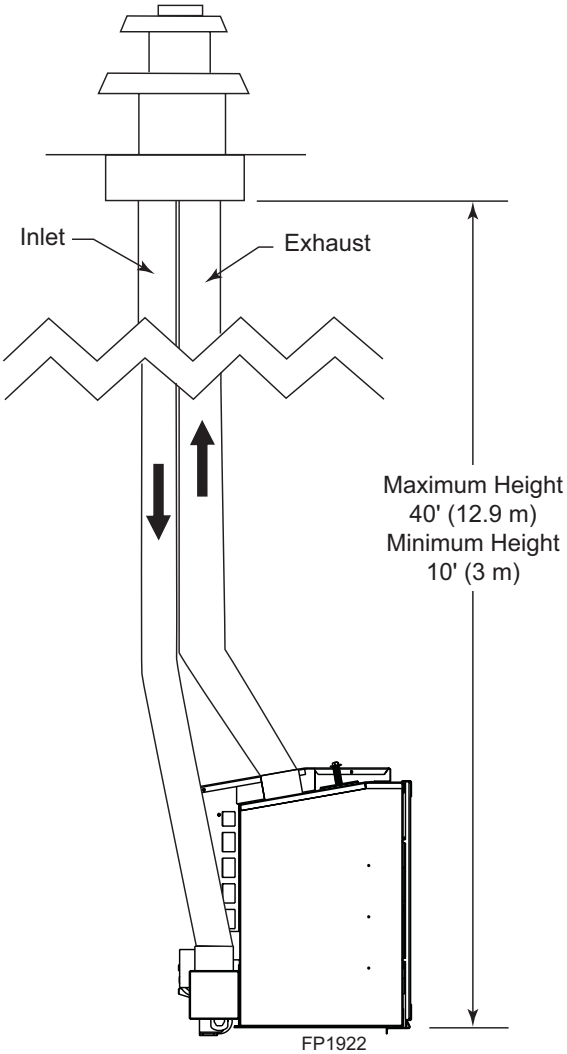
VENT REQUIREMENTS

WARNING

- **Make sure the exhaust pipe on heater connects to exhaust portion of cap. Attach flex liners.** *Figure 6*
- **Do not crimp or rupture liner when bending it into chimney offsets.**

- The exhaust vent must reline the entire length of chimney and terminate above chimney top.
- Vent must meet all vent manufacturer's requirements when installed.
- Make sure you have the following before installing unit:
  - 3" and 3" UL 1777 Listed gas liner for air inlet and exhaust.
  - Vertical termination kit (AI31TK33A, HEDV32T812, HEDV32T1212, HEDVRT)

Figure 6
Venting Unit



ALTITUDE CONSIDERATIONS

This heater has been tested at altitudes ranging from sea level to 4,500 feet (1,370 m). In this testing, heater with standard orifice burns correctly with just an air shutter adjustment. If you need to resize orifice for use at high altitude, contact your dealer.

WARNING

Failure to adjust air shutter properly may lead to improper combustion which can create a safety hazard. Consult your dealer or installer if you suspect an improperly adjusted air shutter.

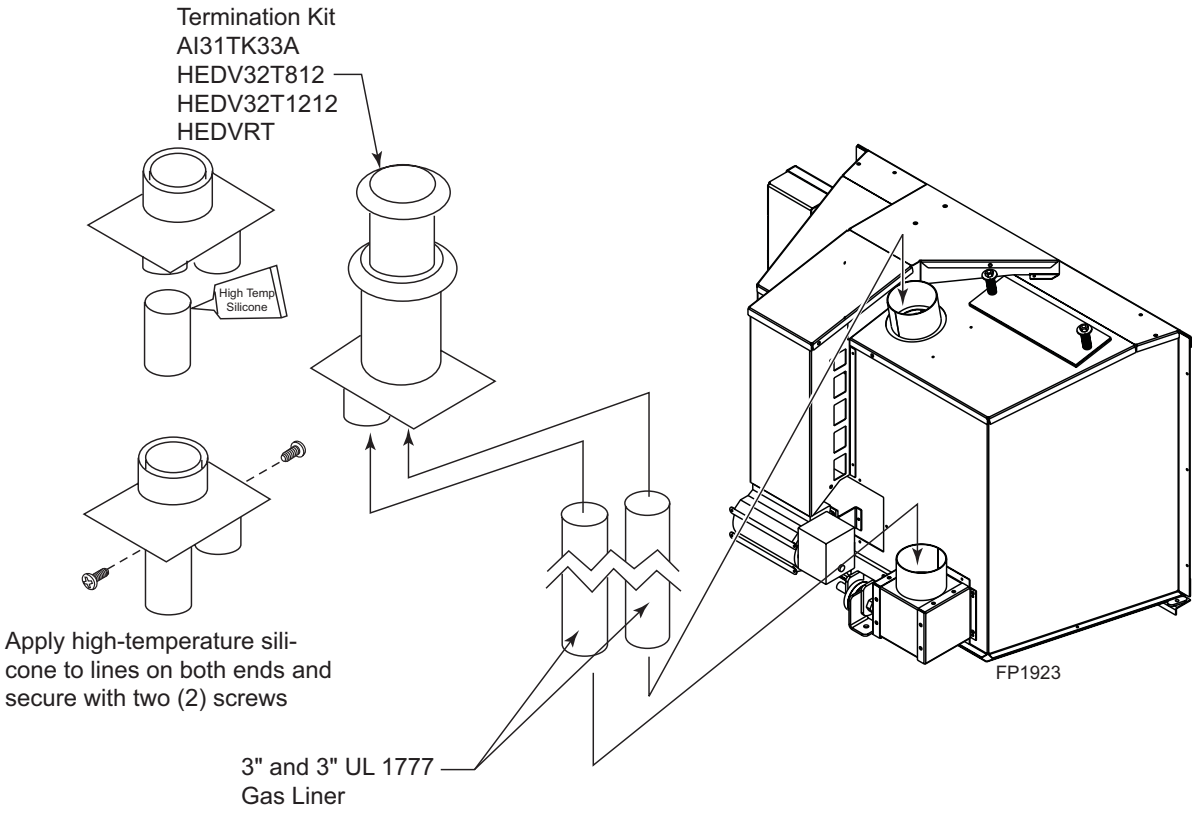


Figure 7
Connecting Vent Pipe to Heater

VENT CONFIGURATIONS

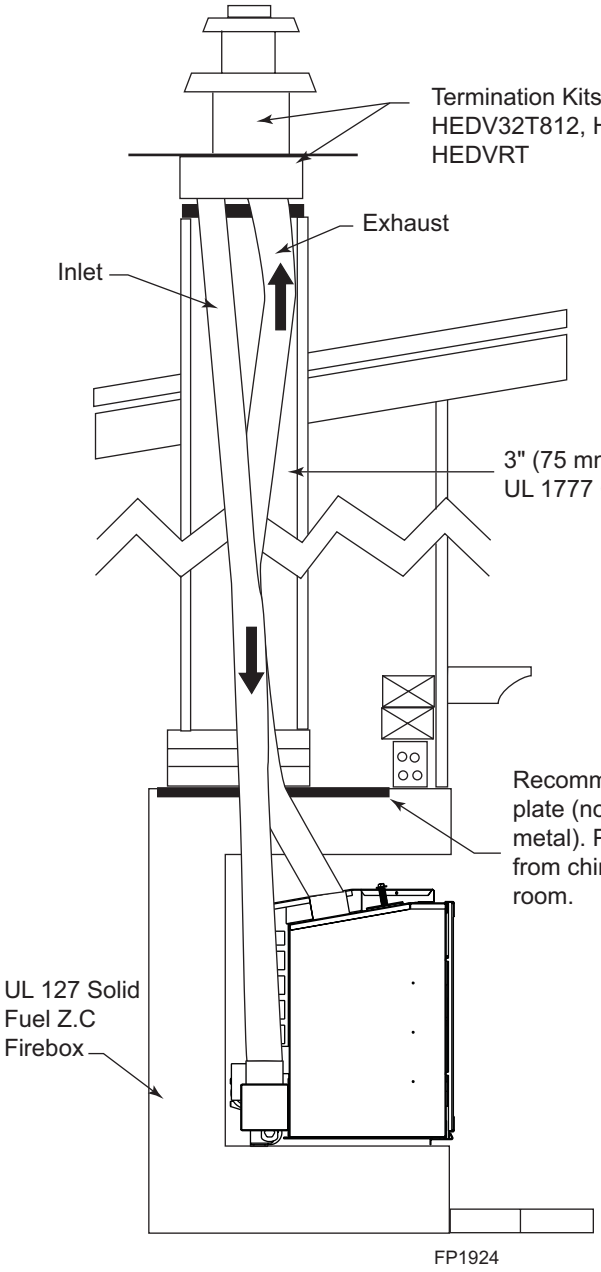


Figure 8
Inlet and Exhaust Reline

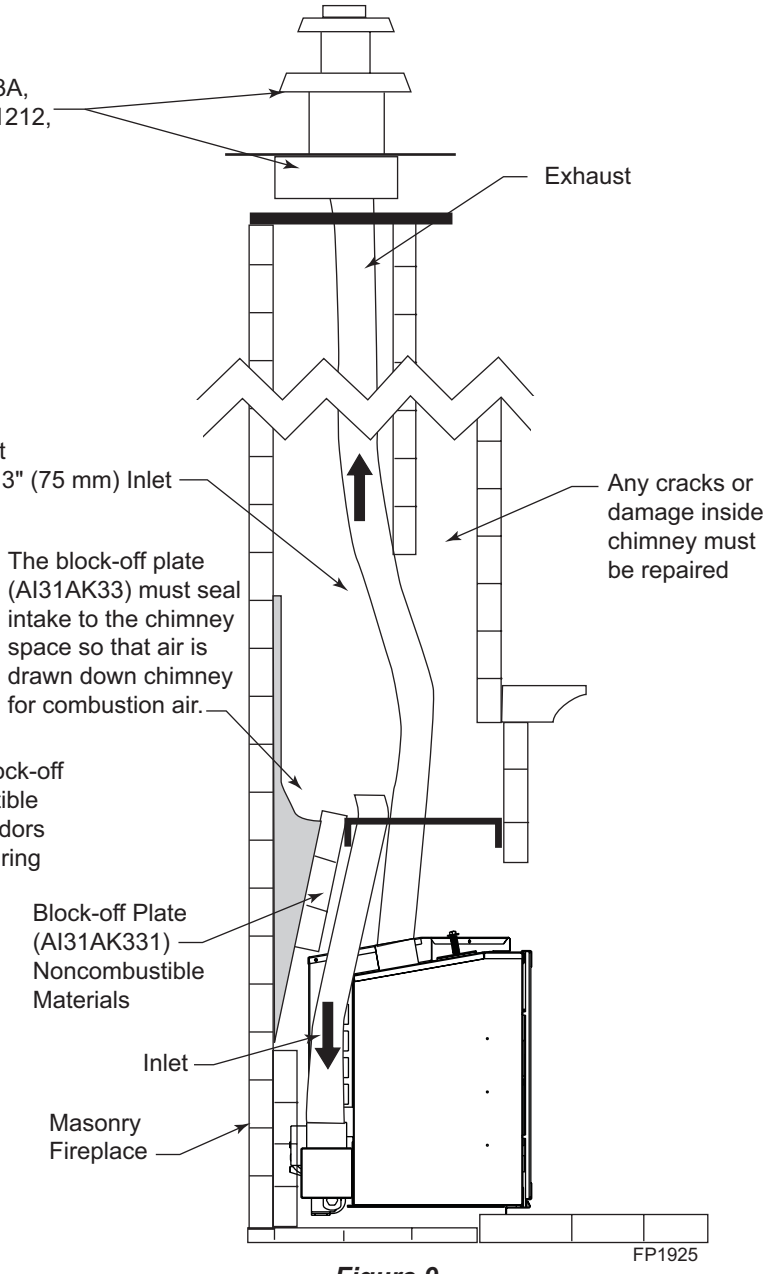


Figure 9
Exhaust Only Reline

NOTE: You may use either reline configuration with a masonry or zero-clearance fireplace.

MANIFOLD REMOVAL AND INSTALLATION

The manifold is shipped attached to insert. It may be removed to allow tight installation.

1. Remove glass door assembly following instructions on *Page 29, Figure 34.*
2. Lightly tap on flange of exhaust baffle assembly towards you until disengaged. Remove baffle, manifold and gasket from unit. *Figure 10*
3. ILDV20: Attach the solid closed baffle plate. ILDV30: Attach the slotted baffle plate. *Figure 11*
4. Feed exhaust flex through hole on top of insert and attach to manifold with hose clamp (not provided) or other approved methods (check local codes). Insure the gasket is in place before securing the flex to the manifold.
5. Re-attach exhaust baffle and manifold assembly in reverse order of Step 2.
6. Re-attach glass door in reverse order.

NOTE: Insert has an adjustable baffle and may be adjusted as needed by loosening four (4) screws. *Figure 11*

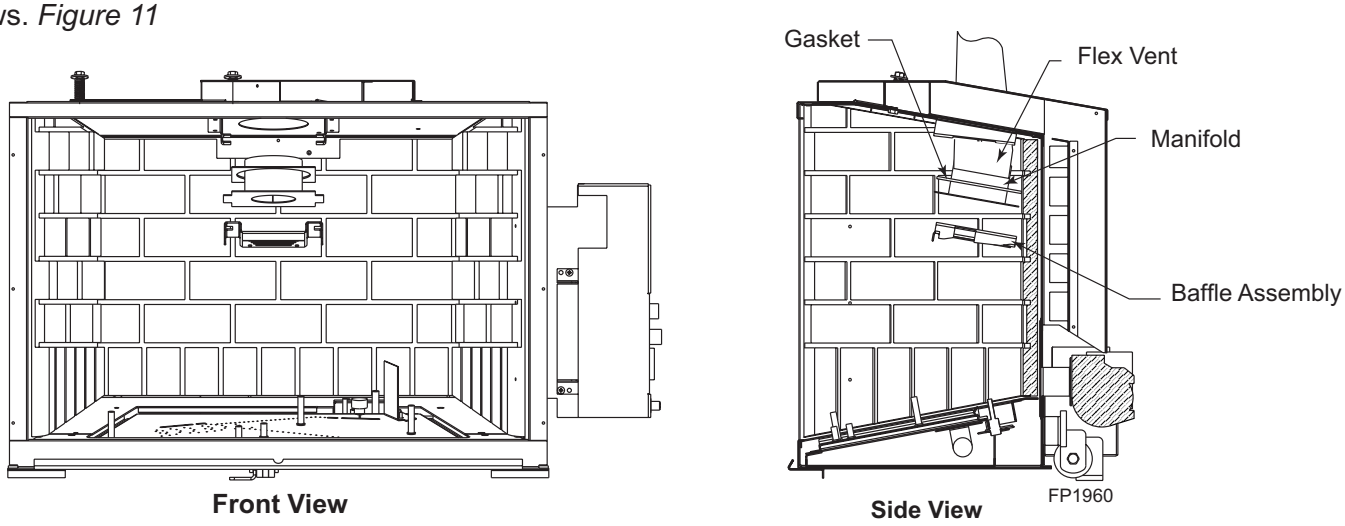
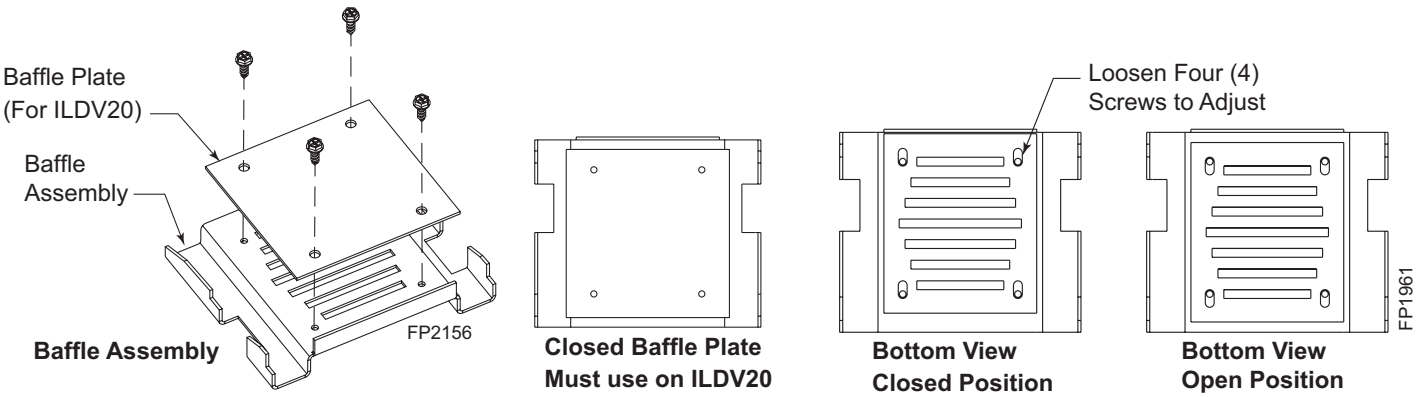


Figure 10
Remove Manifold and Attach to Flex Vent



NOTE: Make sure the correct baffle plate is used.

Figure 11
Baffle Assembly and Adjustment

CHECK GAS TYPE

Use proper gas type for the insert you are installing. If you have conflicting gas type, do not install insert. See dealer where you purchased the insert for proper insert according to your gas type.

INSTALL GAS PIPING TO INSERT LOCATION

WARNING

A qualified installer or service person must connect appliance to gas supply. Follow all local codes.

CAUTION

For propane/LP units, never connect insert directly to the propane/LP supply. This burner system requires an external regulator (not supplied). Install the external regulator between the burner system and propane/LP supply.

INSTALLATION ITEMS NEEDED

Make sure you have the items listed below before installing appliance.

- External regulator (supplied by installer)
- Piping (check local codes)
- Test gauge connection*
- Sealant (resistant to propane/LP gas)
- Sediment trap (optional but recommended)
- Tee joint
- Pipe wrench
- approved flexible gas line with gas connector (if allowed by local codes — not provided)

* A CSA design-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the CSA design-certified equipment shutoff valve from your dealer.

For propane/LP connections only, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 13 inches of water. If you do not reduce incoming gas pressure, burner system regulator damage could occur. Install external regulator with the vent pointing down as shown in *Figure 12*. Pointing the vent down protects it from freezing rain or sleet.

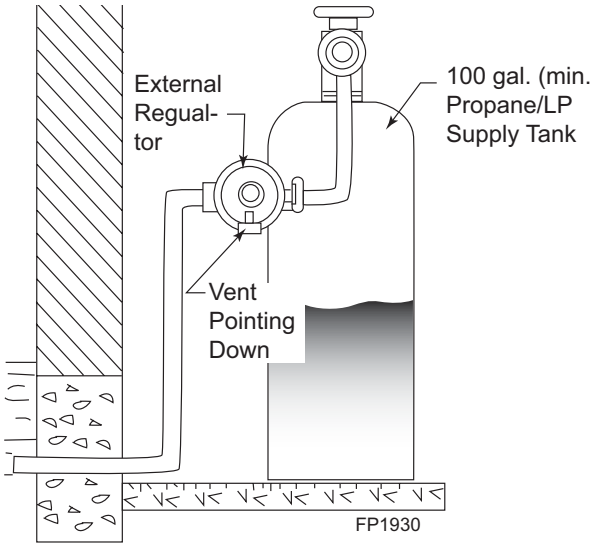


Figure 12 - External Regulator with Vent Pointing Down (Propane/LP Only)

CAUTION

Use only new black iron or steel pipe. Internally tinned copper or copper tubing can be used per National Fuel Gas Code, Section 2.6.3, providing gas meets hydrogen sulfide limits, and where permitted by local codes. Gas piping system must be sized to provide minimum inlet pressure (listed on data plate) at the maximum flow rate (BTU/hr). Undue pressure loss will occur if the pipe is too small.

WARNING **Only persons licensed to work with gas piping may make the necessary gas connections to this appliance.**

CAUTION **A manual shut-off valve is factory installed upstream of the appliance. Union tee and plugged 1/8" NPT pressure tapping point should be installed upstream of the appliance.** *Figure 13*

NOTE : The gas line connection may be made using 1/2" rigid tubing or an approved flex connector. Since some municipalities have additional local codes it is always best to consult your local authorities and the current edition of the National Fuel Gas Code ANSI.Z223.1, NFPA54. In Canada CAN/CGA-B149 (1 or 2) Installation Code.

A listed manual shutoff is factory installed upstream of appliance. Union tee and plugged 1/8" NPT pressure tapping point should be installed upstream of the appliance. *Figure 13.*

IMPORTANT: The main gas valve is for turning on or shutting off the gas to the insert.

Check your building codes for any special requirements for locating equipment shutoff valve to inserts.

CAUTION **Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.**

Apply pipe joint sealant lightly to threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged burner system valves.

We recommend that you install a sediment trap/drip leg in supply line as shown in *Figure 13*. Locate sediment trap/drip leg where it is within reach for cleaning. Install in piping system between fuel supply and burner system. Locate sediment trap/drip leg where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into the burner system gas controls. If sediment trap/drip leg is not installed or is installed wrong, burner system may not run properly.

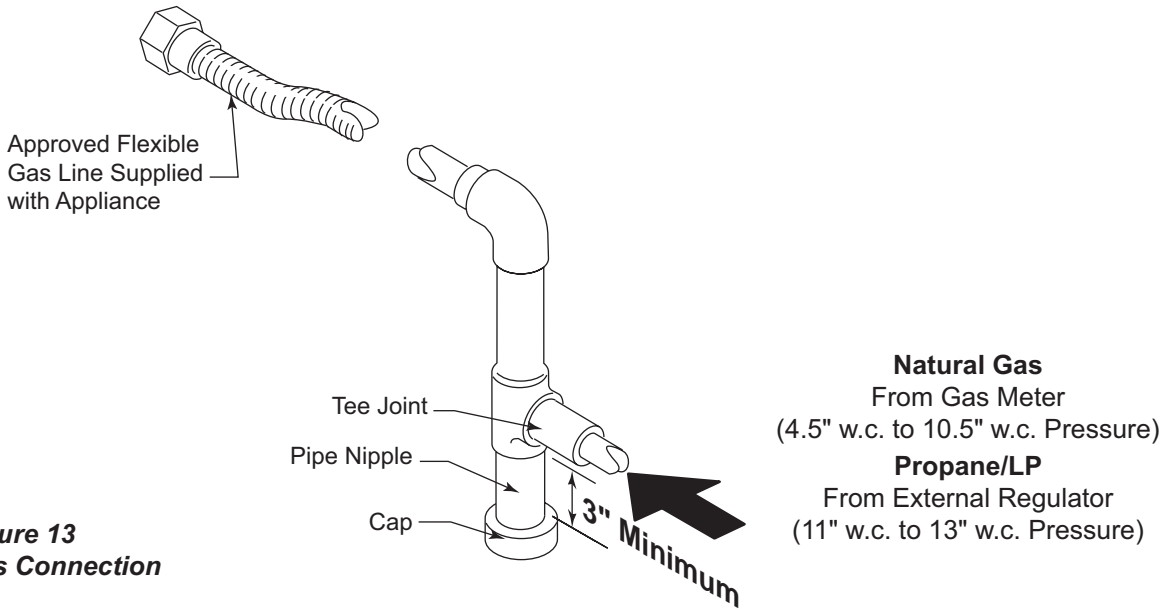


Figure 13
Gas Connection

1. Check gas type. The gas supply must be the same as stated on the appliance's rating decal. If the gas supply is different from the fireplace, STOP! Do not install the appliance. Contact your dealer immediately.
2. Install and attach flex line provided with on this appliance to 1/2" gas line.
3. After completing gas line connection, purge air from gas line and test all gas joints from the gas meter to the fireplace for leaks. Use a soap and water solution or a gas sniffer.
4. To adjust flame height, turn HI/LO knob to HI to get maximum pressure to burner. Turn HI/LO knob to LO to get minimum pressure.
5. To check gas pressures at valve, turn captured screw counter clockwise 2 or 3 turns and then place tubing to pressure gauge over test point. Turn unit to high. *Figure 14.* After taking pressure reading, be sure and turn captured screw clockwise firmly to reseal. Do not over torque. Check test points for gas leaks with a soap and water solution or an electronic gas leak detector.

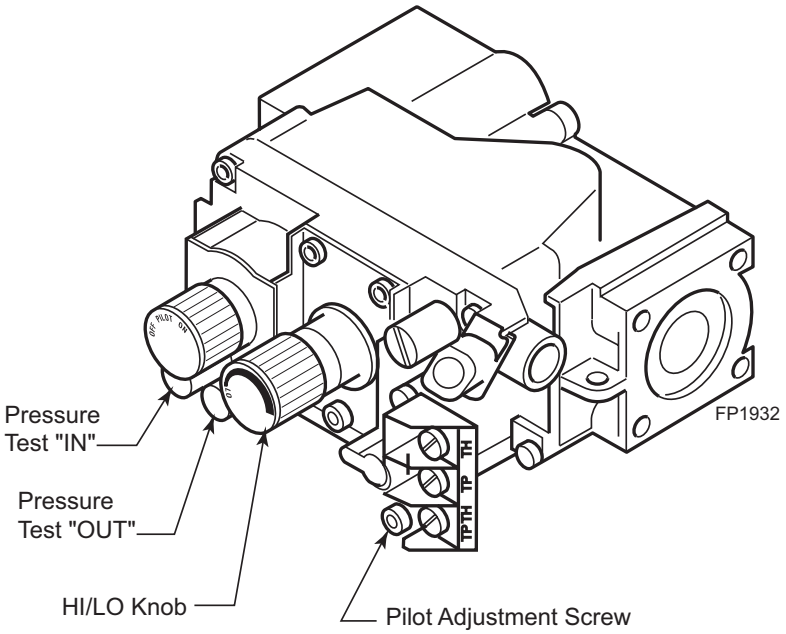


Figure 14
Gas Pressure Check at Gas Valve

WARNING

Do not use open flame to check for gas leaks.

ELECTRICAL WIRING

This insert will work without any electrical supply. Electricity is only needed to operate blower.

WARNING **Electrical connections should only be performed by a qualified, licensed electrician. Main power must be off when connecting to main electrical power supply or performing service. All wiring shall be in compliance with all local, city and state codes. The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the *National Electrical Code ANSI/NFPA 70 (latest edition)* and *Canadian Electrical Code, CSA C22.1*.**

CAUTION **Label all wires before disconnecting when servicing controls. Wiring errors can cause improper and dangerous operation.**

Verify proper operation after servicing.

REMOTE WALL MOUNTED SWITCH

A remote wall switch and up to fifteen (15) feet of 18 Ga. wire may be used with this appliance. Attach the wall switch in a junction box at the desired location on the wall. *Figure 15*.

NOTE: Extended lengths of wire may cause the fireplace not to function properly. Longer length of wire is permitted if the wire is made out of larger gauge (diameter) wire. Always check with local code.

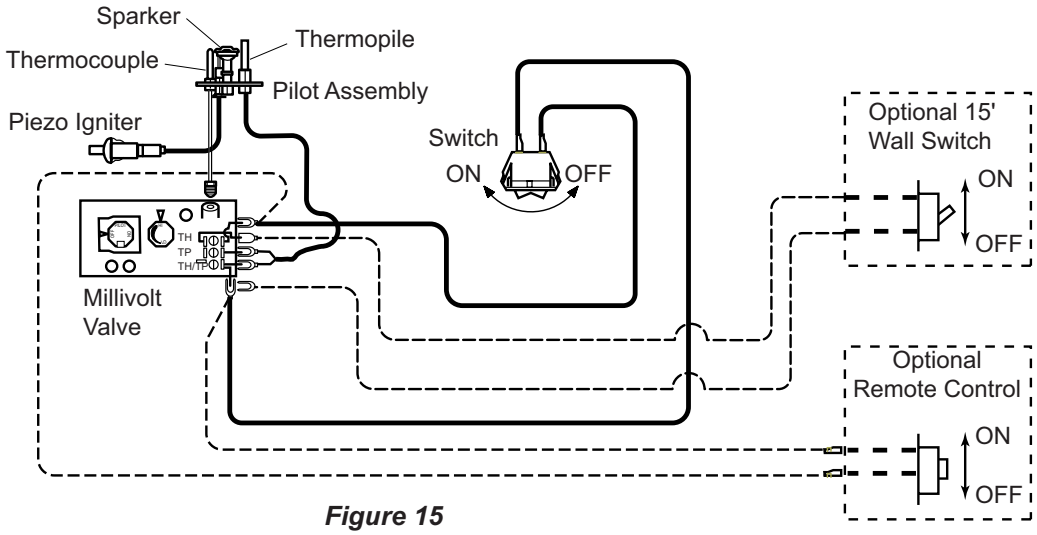


Figure 15
Wiring Diagram for Wall Switch

HAND HELD REMOTE CONTROL

The remote control receiver may be installed in the control panel by removing the ON/OFF switch and the knock-out plate. Slide the receiver into the space where the knock-out plate was removed. Refer to remote instructions for wiring and operation.

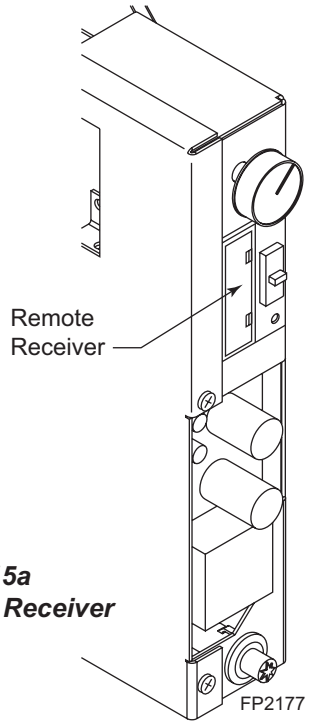


Figure 15a
Remote Receiver

Before you begin - This unit is supplied with six (6) ceramic fiber logs. Do not handle these logs with your bare hands. **Always wear gloves to prevent skin irritation from ceramic fibers.** After handling the logs, wash your hands gently with soap and water to remove any traces of fibers.

WARNING

The positioning of the logs is critical to the safe and clean operation of this heater. Sooting and other problems may result if the logs are not properly and firmly positioned in the appliance. Never add additional logs or embellishments such as pine cones or vermiculite to the heater. Only use the logs supplied with the unit.

Failure to position the parts in accordance with diagrams below or to use only parts specifically approved for this heater may result in property damage or personal injury.

INSTALLING LOGS AND ROCK WOOL (EMBER MATERIAL) IN FIREBOX

1. Break up rock wool (ember material) into dime-sized pieces. Place evenly as shown. Do not exceed 1" layer covering all round burner ports. *Refer to Figures 16a and 16b.*
2. Do not cover rectangular slots located at rear of burner.

WARNING

Do not use the entire bag of rock wool to cover burner area.

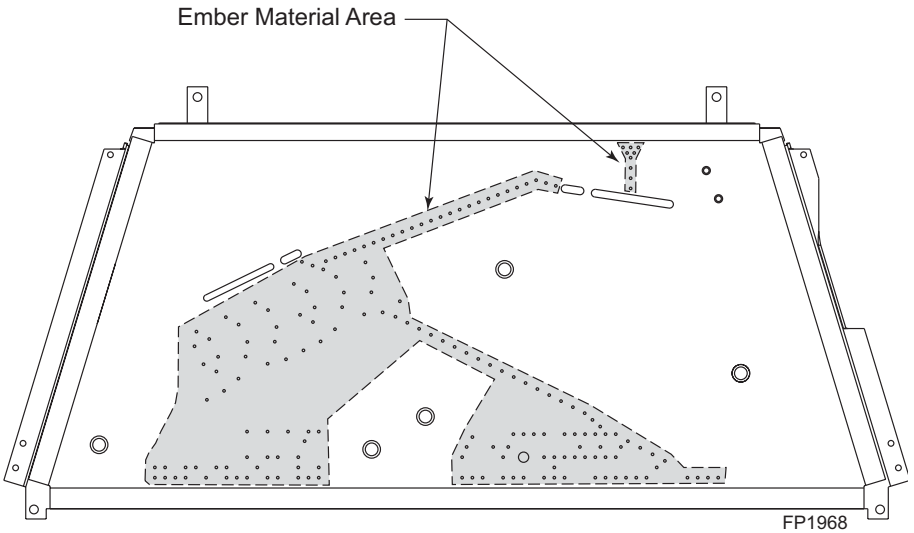


Figure 16a
Ember Material Area

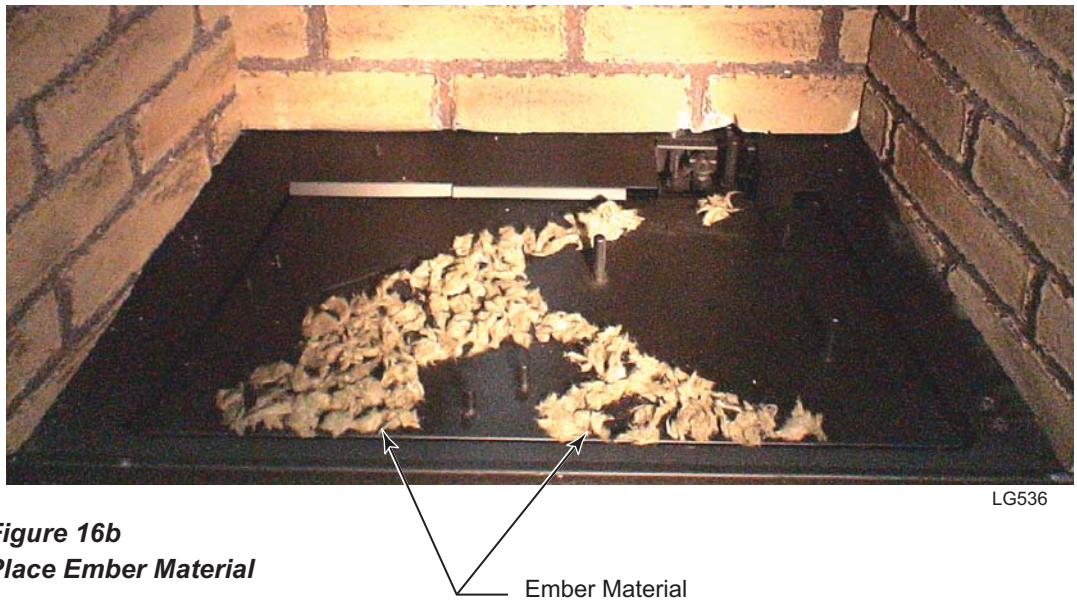


Figure 16b
Place Ember Material

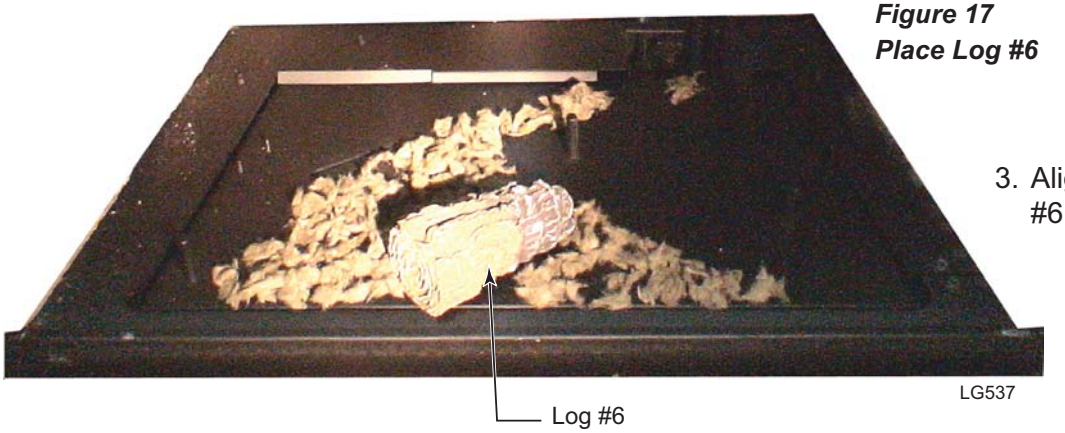


Figure 17
Place Log #6

3. Align the two pin holes on Log #6 onto the burner. *Figure 17*

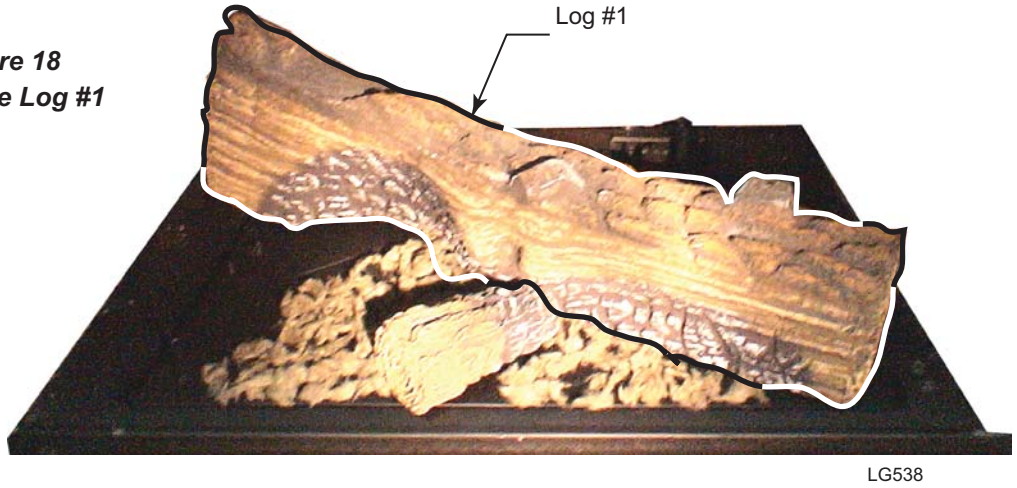


Figure 18
Place Log #1

4. Place log #1 by aligning the holes to the burner pin. *Figure 18*

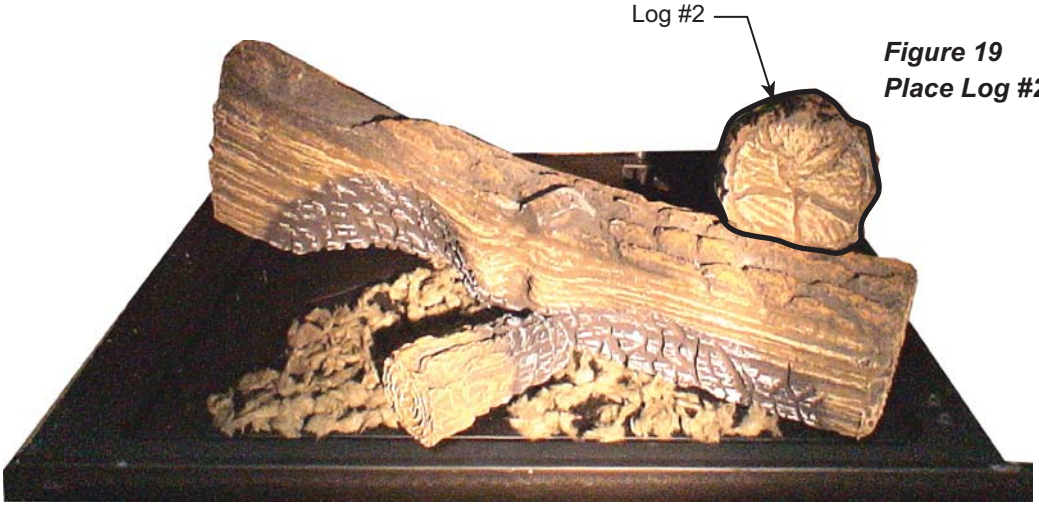


Figure 19
Place Log #2

5. Position log #2 so that it is resting on log #1. *Figure 19*

Figure 20
Place Log #3

6. **ILDV20:** Position log #3 so the bottom right end is resting behind log #2 and the left end is resting on the flat area on log #2.
   ILDV30: Position log #3 so that the bottom right end is resting on the pad on log #2 and the left end is resting on the flat spot on log #1. *Figure 20*

LG540

Figure 21
Place Log #4

LG541

7. Align log #4 hole to the burner pin and rest on log #1. *Figure 21*

Figure 22
Place Log #5

8. Align the cutout on the bottom of log #5 and fit it into log #4. *Figure 22*

LG542

INSTALL SURROUND

1. Remove glass door assembly. *Page 29, Figure 34*
2. Align cast or beveled surround holes with insert and attach with screws provided.
3. Re-attach glass door assembly.
4. Attach filigree to face by gently pushing into place.

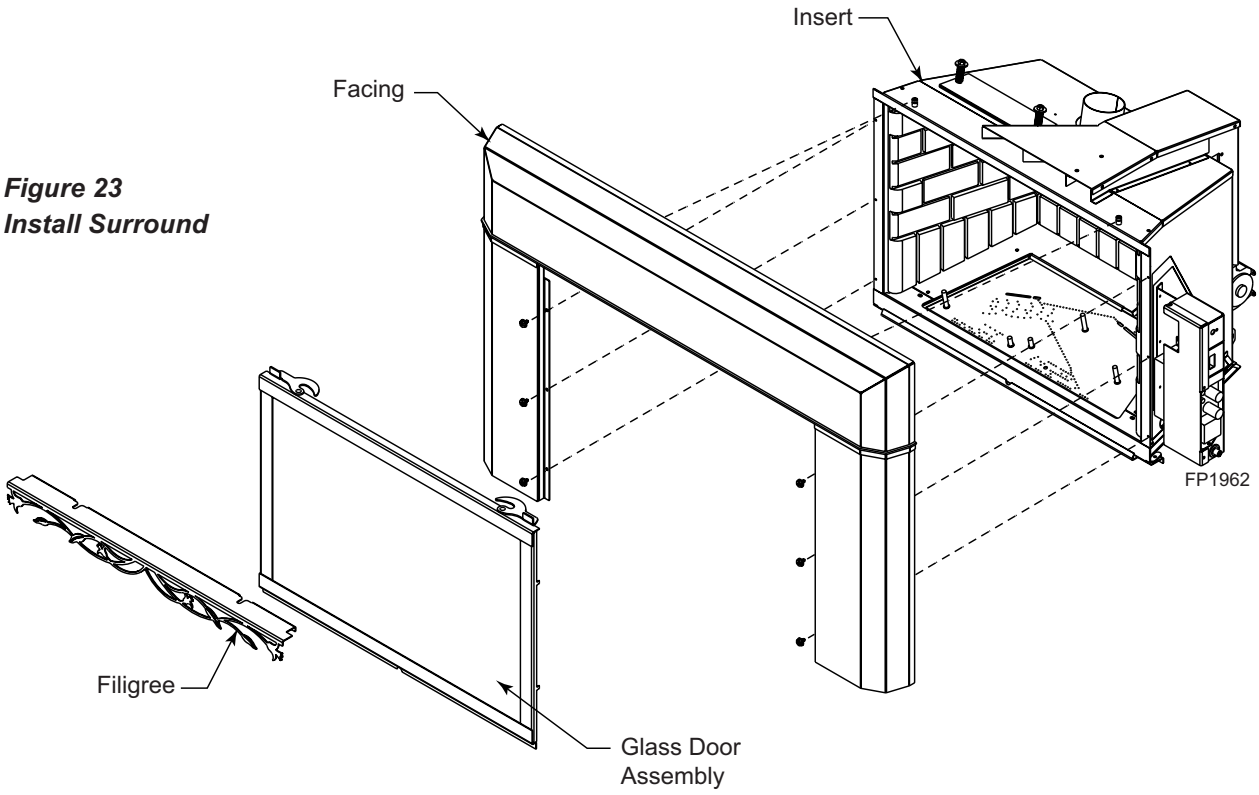


Figure 23
Install Surround

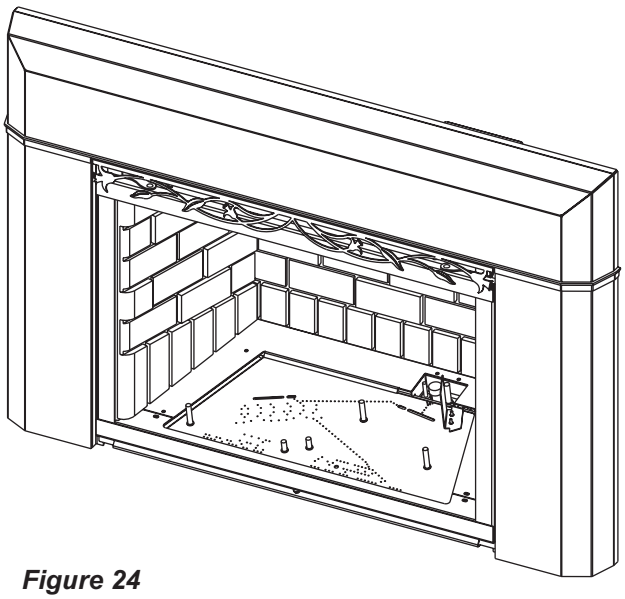


Figure 24
Beveled Surround

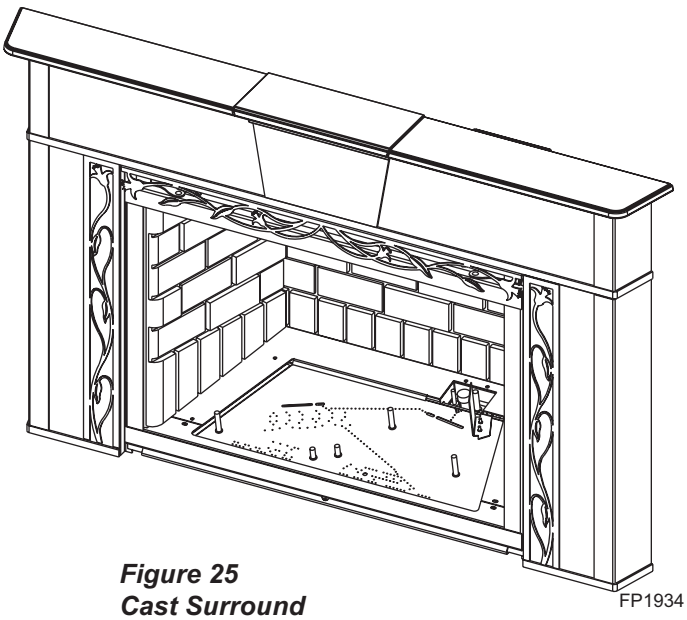


Figure 25
Cast Surround

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING

If you do not follow these instruction exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance is equipped with a pilot which must be lit with built-in piezo ignitor while following these instructions exactly.

B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Turn off all gas to the appliance.
- Open windows.
- Do not attempt to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to push in, or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part of it has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

LIGHTING PILOT FOR THE FIRST TIME

INITIAL LIGHTING

Purge air from the supply line as follows:

- Open main shutoff valve.
- Unscrew main pressure test point.
- Leave inlet test screw open until gas comes in.
- When gas is flowing, tighten inlet screw immediately.

WARNING

Never use an open flame to check for gas leak.

LEAK TESTING

1. Follow the pipe from the gas supply line connection to the gas valve. Check connection for leaks with soap and water mixture.
2. Next check for gas leaks at the burner with soap and water mixture.
3. Check the pilot for gas leaks with soap and water mixture.

LIGHTING PILOT FOR THE FIRST TIME

APPROVED LEAK TESTING METHOD

You may check for gas leaks with the following methods only:

- Soap and water solution
- An approved leak testing spray
- Electronic sniffer

WARNING **If using a soap and water solution to test for leaks, DO NOT spray solution onto control body.**

NOTE: Remove any excessive pipe compound from the connections. Excessive pipe compound can set off electronic sniffers.

DANGER **Never check for gas leak with open flame!**

Check for gas leaks in each of the following locations:

- Pipe from the gas supply line connection to the gas valve
- Burner connections
- Pilot
- Each joint or connection
- Field made joints / gas shutoff valve
- Factory made joints
- All joints on valve and control body

LIGHTING PILOT

WARNING **The control has an interlock device that does not allow the lighting of the fireplace up to the moment the safety device of the flame has not interrupted the gas flow. After that period of time (when the magnet is closed), it is possible to start the lighting operation.**

The gas control knob is designed to be operated by hand. DO NOT use any tools during this operation. Damaged knobs may result in serious injury.

1. Depress and turn knob counterclockwise ↶ to pilot position.
2. Depress fully and hold pilot gas knob. Depress piezo igniter as many times as needed to ignite pilot. Keep knob fully depressed for a few seconds. Release and check that pilot continues to burn.

If the pilot does not stay lit, repeat steps 1 and 2.

WARNING **If the knob does not "pop" out to its original position when released, turn off gas to appliance and contact qualified service technician.**

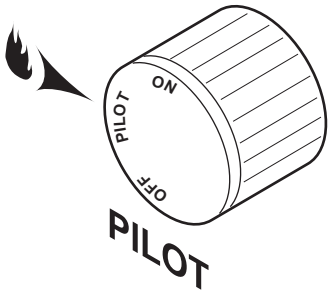


Figure 26 - Pilot Position

Continued on next page

LIGHTING BURNER

MAIN BURNER SWITCH

The “ON/OFF” switch for the main burner can be found on the right side of insert surround. This switch allows you to turn on and to turn off the main burner without using the gas valve knob. Make sure the button is in the “ON” position to light the main burner. *Figure 27*

LIGHTING THE BURNER

Depress and turn the knob counterclockwise ↶ to the “ON” position. *Figure 28* It will take less than four (4) seconds for the burner to ignite.

PILOT POSITION

Depress and turn knob to pilot position to keep burner off while maintaining the pilot light. *Figure 29*

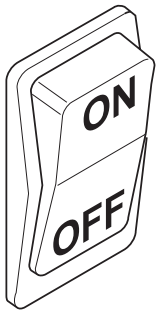


Figure 27 - On/Off Switch

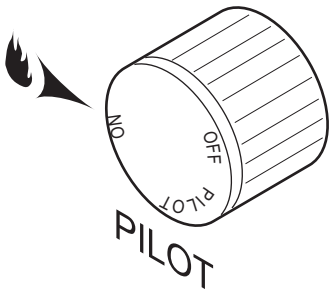


Figure 28 - On Position

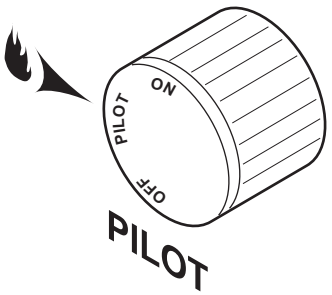


Figure 29 - Pilot Position

TO TURN OFF GAS

Depress and turn knob clockwise to “OFF” position. *Figure 30*

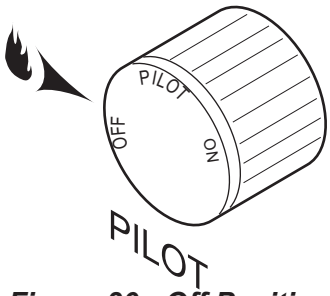


Figure 30 - Off Position

ADJUSTING BLOWER SPEED

The internal blower helps transfer heat from heater into room. It will not turn on until heater is up to temperature (approximately 10 minutes after starting).

To turn blower off, turn knob all the way counterclockwise ↶. One click clockwise turns blower to high speed. Turning knob clockwise ↷ from high position decreases speed of blower. *Figure 31*

Figure 31 - Blower Knob

ADJUST THE AIR SHUTTER

The venturi of the burner is equipped with an air shutter. The opening of the venturi has been set at 1/4" for Natural Gas and fully open for Propane installation at sea level. The burner on Natural Gas models may be adjusted for high altitude as follows:

- To increase air mixture, open the shutter more. This will reduce soot formation. *Figure 32*
- To decrease air mixture, close the shutter. Flames will be more yellow. *Figure 33*

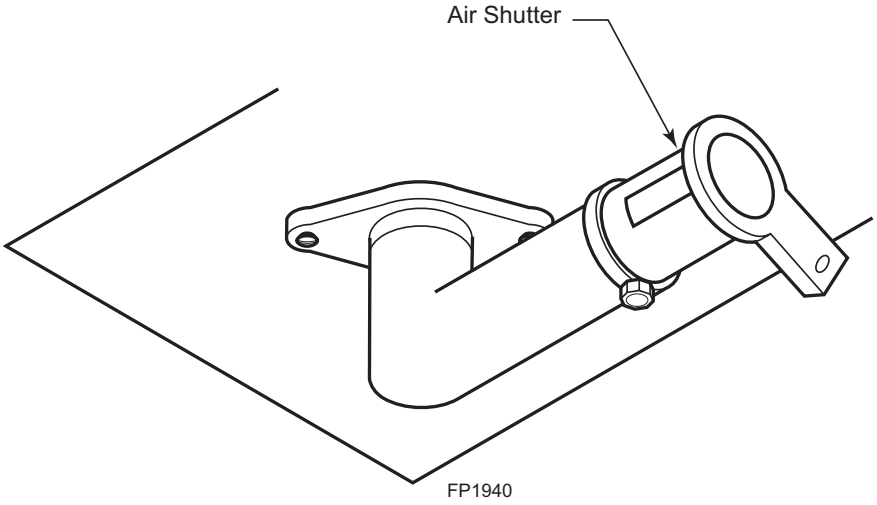


Figure 32
Push Adjustment Lip Up to Open Air Shutter

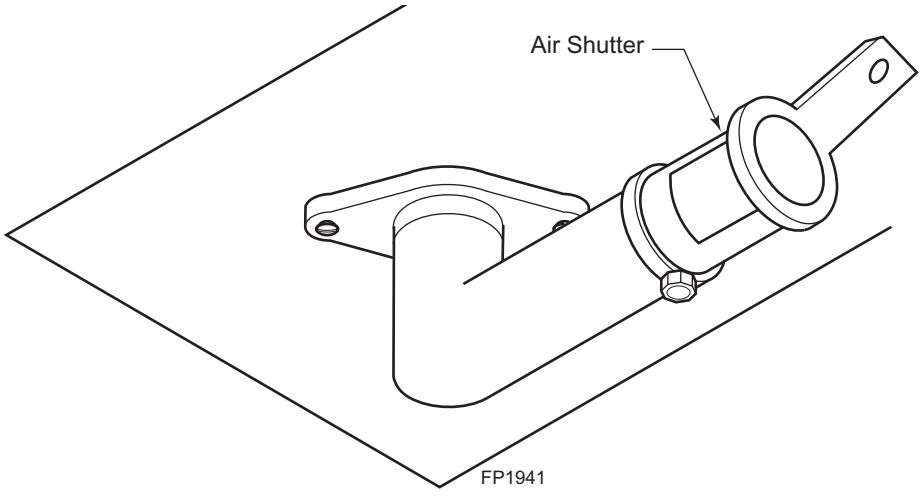


Figure 33
Pull Adjustment Lip to Close Air Shutter

CAUTION

Always use gloves when handling broken glass.

WARNING

Make sure the glass panel edges donot touch any metal parts during thermal expansion.

GLASS FRAME REMOVAL

1. Carefully remove upper filigree by pulling straight out.
2. Remove glass frame from insert by releasing two latches on top of insert and lifting the door up and off the unit. *Figure 34*
3. Set glass frame aside.
4. Re-install in reverse order.

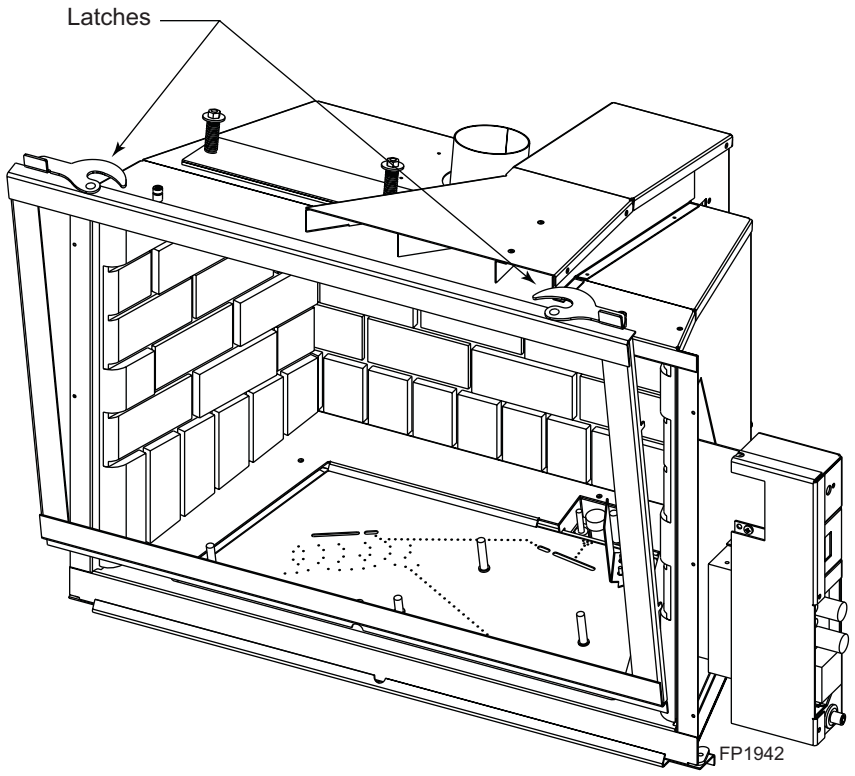


Figure 34
Glass Frame Removal

BLOWER REPLACEMENT

Turn off the unit and allow to cool completely. Turn off gas at shut-off and disconnect all electricity to unit.

1. Remove the decorative filigree by gently pulling it out.
2. Rotate the cam on the glass toward the center.
3. Tilt the glass out left and release it from the track.
4. Set the glass on a towel out of the way.
5. Remove the logs and bricks. To remove the brick, unfasten the brackets located on the right and left.
6. Unfasten the brick support plate fastened to the burner.
7. Unfasten the rectangular plate located at the rear of the firebox by only removing the six (6) screws around the perimeter of the plate.
8. Lift the plate up and slide to the left. You may have to rotate the plate to clear the blower through the hole.
9. Disconnect the two (2) wires to free the blower.
10. Reassemble the blower in reverse order.

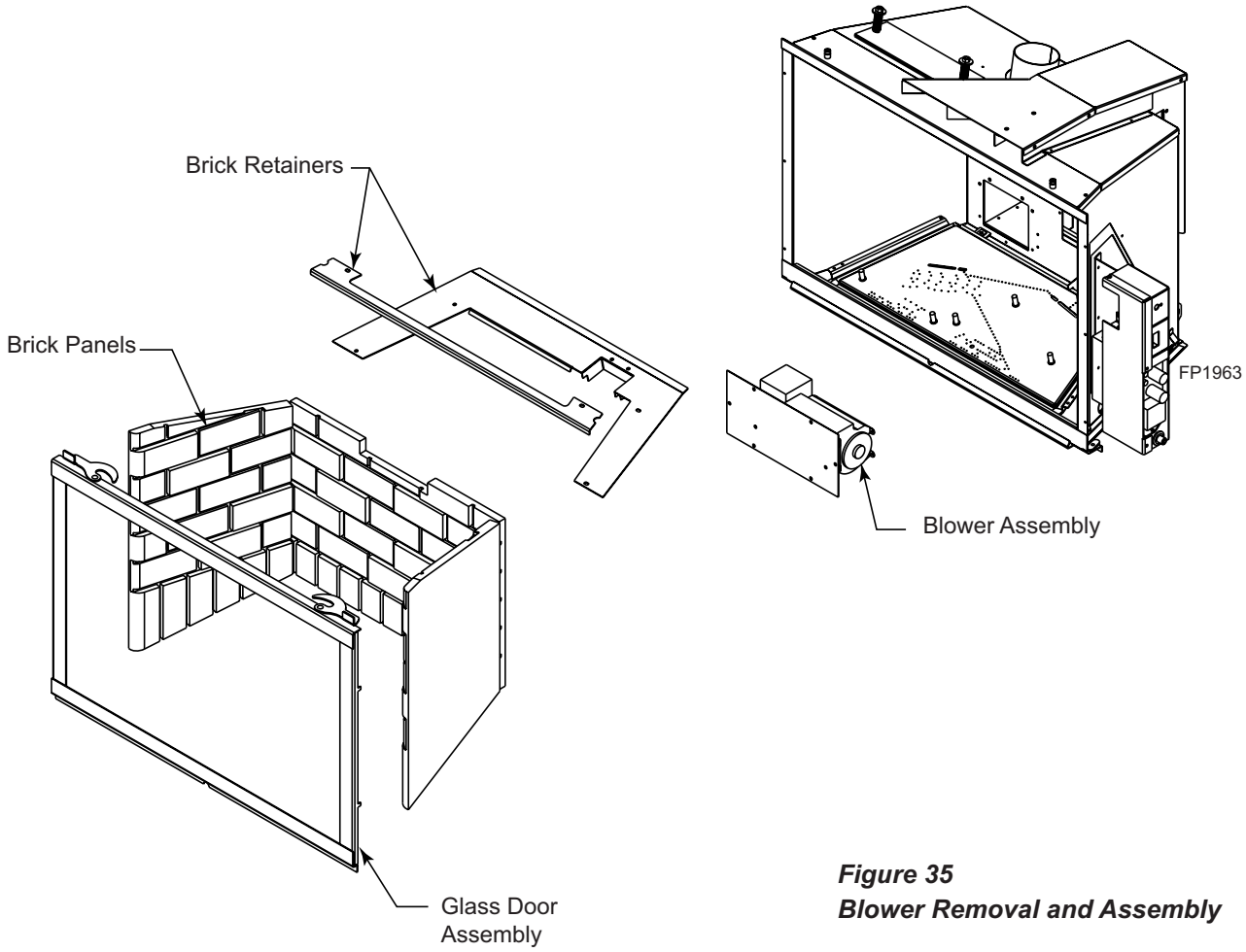
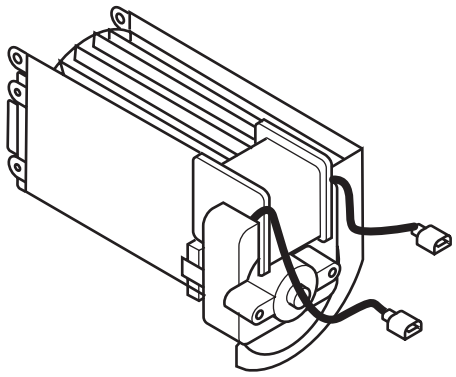


Figure 35
Blower Removal and Assembly

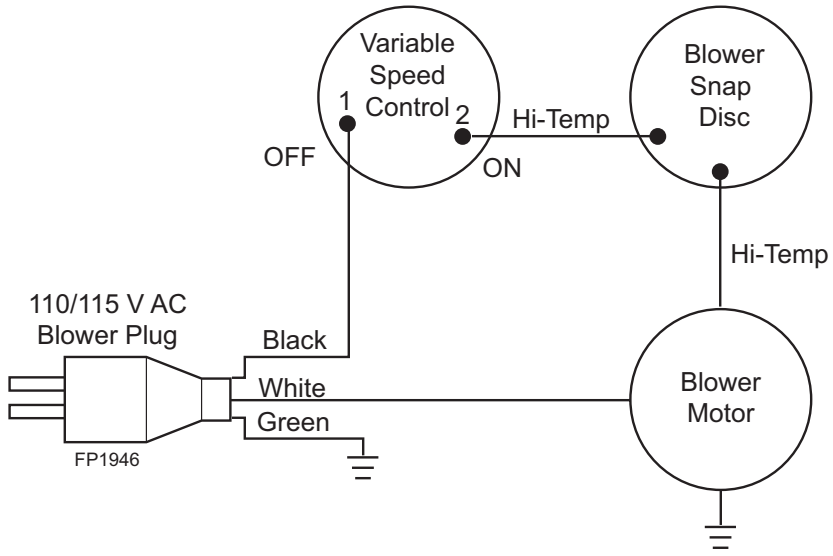
BLOWER PARTS LIST:

Description	Qty.	ILDV20	ILDV30
Blower	1	53D2162	56D2195
Parts not shown			
Disc Bracket	1	39D0098	39D0098
Blower Snap Disc	1	26D2870	26D2870
Speed Control	1	26D0746	26D0746
Wire Assembly 34"	1	83D0521	83D0521
Wire Assembly 16"	2	83D0522	83D0522



CAUTION

Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.



Make sure the gas valve knob is in the “OFF” position. Wait at least five (5) minutes before start-ing maintenance.

VENTING SYSTEM

A qualified agency should examine the venting system annually.

CLEANING GLASS

Clean the ceramic glass periodically. Condensation will sometimes form on the glass during a cold startup. This is normal for all gas fireplaces and inserts. This condensation often attracts dust and lint to the surface of the glass. The initial paint curing of the appliance can also leave a slight film on the glass. This is a temporary problem.

You should clean the glass after the first two weeks of use. After that, you should clean the glass no more than two or three times a season. Use a mild glass cleaner to clean the door. Do not use abrasive cleaners. They will damage the glass surface.

PILOT AND BURNER FLAMES

Visually check pilot and burner flames periodically. *Refer to Figure 36* for typical burner flame. *Refer to Figure 37* for typical pilot flame.

Figure 36
Typical Burner Flame

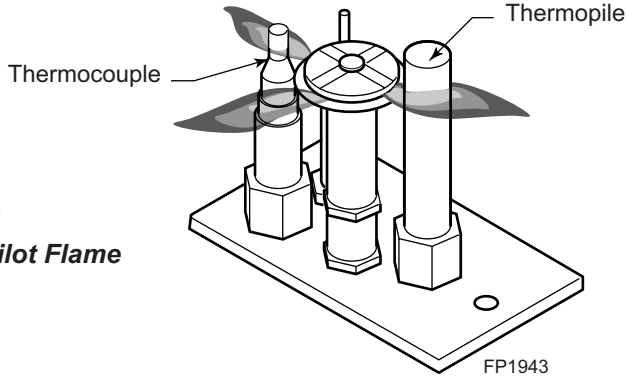


Figure 37
Typical Pilot Flame

FIREBOX CLEANING

WARNING

- **Allow logs to cool completely before cleaning. Logs reach high temperatures.**
- **Make sure clearances to combustibles leave enough room for maintenance and service.**
- **Carefully reassemble and reseal insert properly after any cleaning or servicing.**

1. Carefully remove log set, and embers from combustion chamber.
2. Vacuum burner compartment thoroughly.
3. Vacuum any dust off logs.
4. Remove any lint from main burner and pilot.
5. Carefully replace log set, and embers in their correct positions. *Refer to Pages 21 through 23.*
6. Replace door.
7. Relight pilot. *Refer to Page 26.*
8. Turn on main burners.

YEARLY SERVICE PROCEDURE

Failure to inspect and maintain heater may lead to improper combustion and a potentially dangerous situation. A qualified technician should do the following once a year.

1. Check pilot flame. Flame should touch approximately 3/8" of the top of thermopile and touch top of thermocouple. *Figure 38* If not, contact dealer for service.
2. Turn gas control knob to “OFF” position to shut off gas to heater. *See step “To Turn Off Gas”, Page 27.* Let heater cool for 15 minutes. Remove faceplate (see instructions included with face plate) and glass. *Page 29.*
3. Carefully remove log set. If logs are severely deteriorated, replace logs. Check logs for sooting. A small amount of soot along bottom of logs is normal. If excessive sooting is found, heater must be adjusted. Contact dealer where you bought heater.
4. Clean burner and burner ports. *Figure 39*
5. Replace log set and rock wool per instructions on Pages 21-23. Replace glass. Make sure gasket along perimeter of glass contacts face of firebox and forms an airtight seal. Realign if airtight seal is not formed. Replace glass and glass frame if damaged.
6. Inspect area behind face plate. Clean if necessary. Check gas control valve and all gas lines. If damaged, do not use heater. Contact your dealer.
7. Start pilot and turn on main burner. Flames should be orange/yellow and not touch top of firebox. If pilot or main burners do not burn correctly, contact your dealer for service. Monitor blower operation.

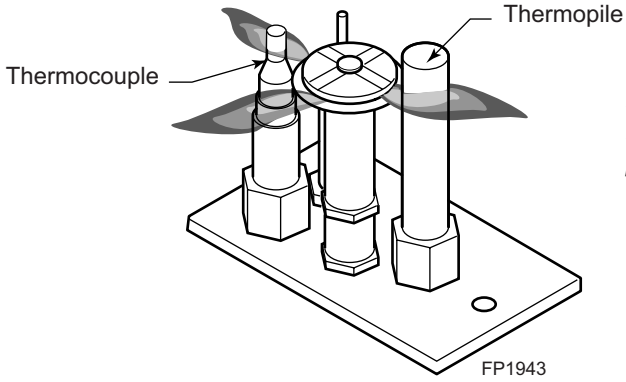


Figure 38
Before taking unit apart, check pilot flame. Flame should touch thermocouple and thermopile.

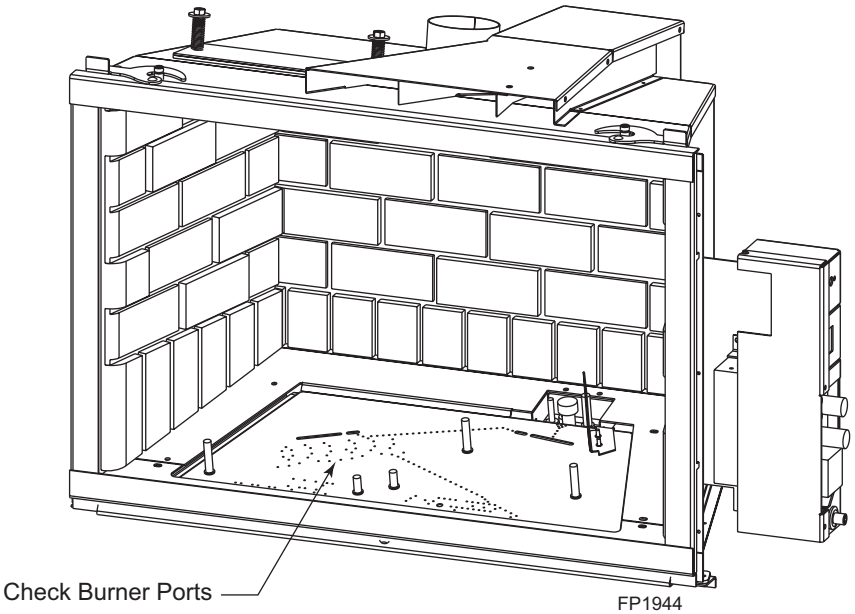
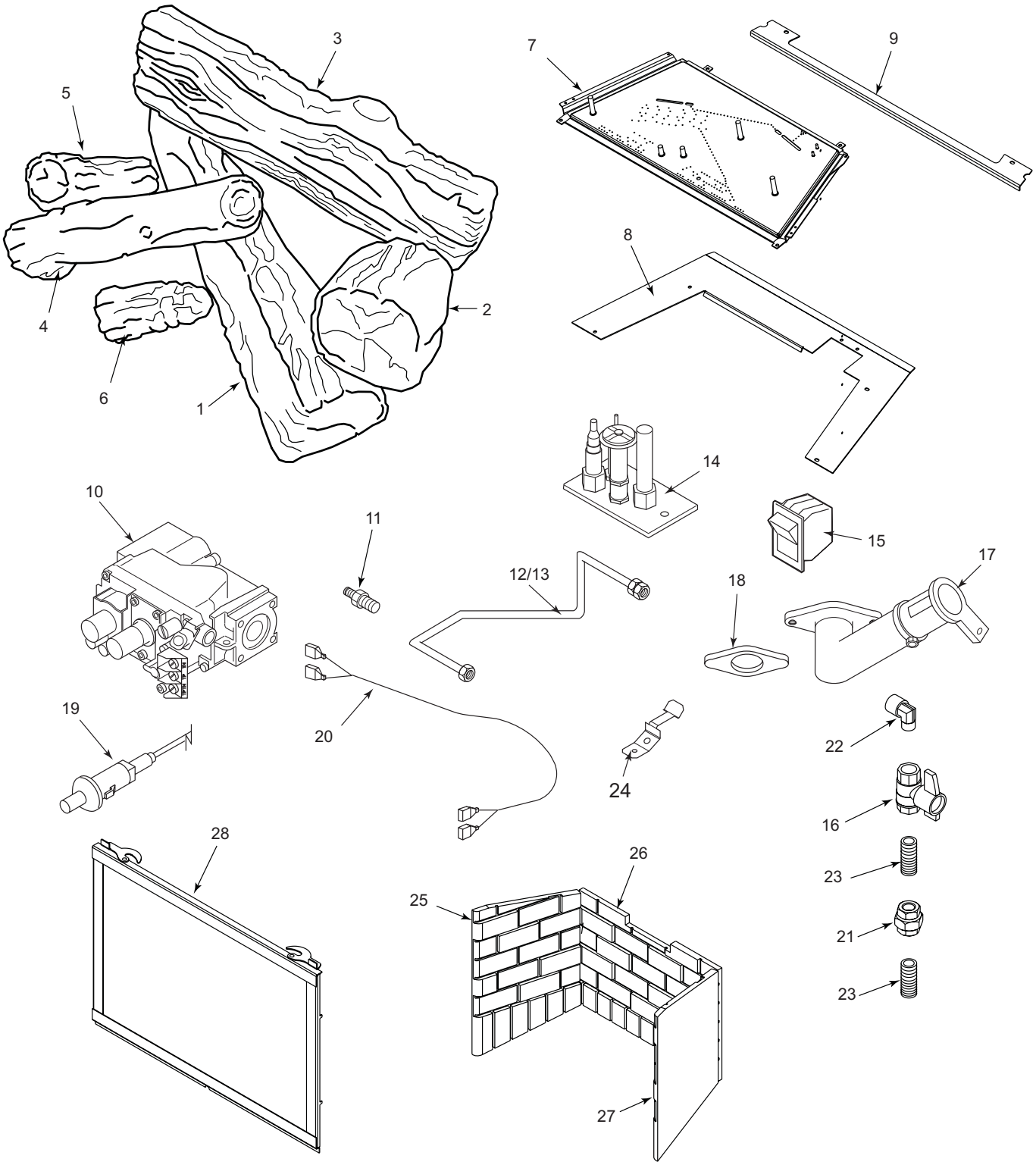


Figure 39
Check Burner Ports and Burners


1
2
3
4
5
6
7
8
9
10
11
12/13
14
15
16
17
18
19
20
21
22
23
23
24
25
26
27
28

Item	Description	Qty.	ILDV20NV Natural	ILDV20PV Propane	ILDV30NV Natural	ILDV30PV Propane
1.	Log #1	1	83D2026	83D2026	83D1047	83D1047
2.	Log #2	1	83D2027	83D2027	83D1049	83D1049
3.	Log #3	1	83D2028	83D2028	83D1045	83D1045
4.	Log #4	1	83D2029	83D2029	83D1048	83D1048
5.	Log #5	1	83D2030	83D2030	83D1050	83D1050
6.	Log #6	1	83D2031	83D2031	83D1046	83D1046
7.	Burner Assembly	1	83D2261	83D2261	83D1267K	83D1267K
8.	Support Brick Rear	1	83D2009K	83D2009K	83D1026K	83D1026K
9.	Support Brick Front	1	83D2010K	83D2010K	83D1027K	83D1027K
10.	SIT820 Nova Valve	1	37D0117	37D0118	37D0117	37D0118
11.	Injector	1	59D0062	69D0079	62D3003	20H3144
12.	Tube from Valve	1	83D5053	83D5053	83D1040K	83D1040K
13.	Tube from Venturi	1	83D2037	83D2037	83D1039K	83D1039K
14.	Pilot Assembly	1	37D0018	37D0019	37D0018	37D0019
15.	Rocker Switch	1	32D0232	32D0232	32D0232	32D0232
16.	Shutoff Valve	1	83D0503	83D0503	83D0503	83D0503
17.	Venturi	1	45D0059	45D0059	45D0059	45D0059
18.	Gasket Venturi	1	45D0032	45D0032	45D0032	45D0032
19.	Piezo Ignitor	1	14D0503	14D0503	14D0503	14D0503
20.	ON/OFF Wire Harness	1	48D0163	48D0163	48D0163	48D0163
21.	Union	1	26D4500	26D4500	26D4500	26D4500
22.	Elbow	1	27D7307	27D7307	27D7307	27D7307
23.	Fitting	2	27D7026	27D7026	27D7026	27D7026
24.	Disk Bracket	1	26D3320	26D3320	26D3320	26D3320
25.	Left Brick Liner	1	83D2019	83D2019	83D1042	83D1042
26.	Rear Brick Liner	1	83D2020	83D2020	83D1043	83D1043
27.	Right Brick Liner	1	83D2018	83D2018	83D1041	83D1041
28.	Glass Door Assembly	1	83D2252K	83D2252K	83D1252K	83D1252K
29.	Blower (not shown)	1	56D2162	56D2162	56D2195	56D2195
30.	Blower Snap Disc (not shown)	1	26D2870	26D2870	26D2870	26D2870
31.	Speed Control (not shown)	1	26D0746	26D0746	26D0746	26D0746
32.	Blower Wire Assembly 34" (not shown)	1	83D0521	83D0521	83D0521	83D0521
33.	Wire Assembly 16" (not shown)	2	83D0522	83D0522	83D0522	83D0522
34.	Flex Line (not shown)	1	20H0002	20H0002	20H0002	20H0002

WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

WARNING

Turn appliance OFF and allow to cool before servicing. Only a qualified service person should service and repair the heater.

NOTE: All troubleshooting items are listed in order of operation.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Piezo ignitor will not light the pilot after repeated pressing of piezo ignitor.	1. Defective ignitor 2. Misaligned spark electrode	1. Check connections to ignitor. Replace ignitor if ignitor connections are good, but there is no spark. 2. Check for spark arcing from the electrode to pilot. Adjust and retighten.
Pilot will not stay lit.	1. Defective thermocouple. Loose thermocouple 2. Air in gas line 3. No gas	1. Check for proper connection of thermocouple to rear of valve. 2. Bleed line. Contact dealer 3. Check shutoff valve and gas supply (LPG tank)
Burner will not light when valve and burner switch are both on.	1. Defective switch 2. Defective thermopile 3. Thermostat set too low/defective	1. Check switch connections. Jump wires at switch. 2. Check connections to valve. Contact dealer. 3. Turn up thermostat to start unit. Check thermostat connections.
Glass fogs up	1. Normal condition	1. Allow appliance to warm up. Glass will clear. Additives in the gas may dirty glass. Clean glass when cool.
Blue flames	1. Normal during start up	1. Flames will yellow as appliance heats up.
Sooting	1. Flame impingement	1. Check log position. Open shutters to increase primary air.

NOTES

LIMITED LIFETIME WARRANTY POLICY

LIFETIME WARRANTY

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, Heat Exchanger, Grate and Stainless Steel Burners.

FIVE YEAR WARRANTY

The following components are warranted five (5) years to the original owner, subject of proof of purchase: Ceramic Fiber Logs.

BASIC WARRANTY

MHSC warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of two years from date of installation. After installation, if any of the components manufactured by MHSC in the appliance are found to be defective in materials or workmanship, MHSC will, at its option, replace or repair the defective components at no charge to the original owner. MHSC will also pay for reasonable labor costs incurred in replacing or repairing such components for a period of two years from date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Limited Lifetime Warranty will be void if the appliance in not installed by a qualified installer in accordance with the installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damage by accident, neglect, misuse, abuse, alterations, negligence of others, including the installation thereof by unqualified installers, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability of fitness for purpose and of all other obligations or liabilities. MHSC does not assume for it any other obligations or liabilities in connection with sale or use of the appliance. It states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damage, those limitations of exclusions may not apply to you. You may also have additional rights not covered in the Limited Lifetime Warranty.

MHSC reserves the right to investigate any and all the claims against the Limited Lifetime Warranty and decide upon method of settlement.

IF WARRANTY SERVICE IS NEEDED...

1. Contact your supplier. Make sure you have your warranty, your sales receipt and the model/serial number of your MHSC product.
2. DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF.

Canada

ENERGUIDE

Look for the **EnerGuide**
Gas Fireplace Energy
Efficiency Rating in this brochure

Based on CSA P.4.1-02

Efficiency Ratings				
Model	**EnerGuide Ratings Fireplace Efficiency (%)**	**Steady State (%)**		**D.O.E. (AFUE%)**
		Fan-OFF	**Fan-ON**	
ILDV20NV	67.5	73.5	74.5	66.4
ILDV20PV	73.9	79.8	80.8	74.6
ILDV30NV	71.9	76.5	77.5	65.9
ILDV30PV	83.7	88.6	89.6	68.5

MHSC
149 Cleveland Drive • Paris, Kentucky 40361
www.mhsc.com

DECEMBER 2008
83D0511 • Rev. 2